The University of Chicago

THE CURRICULUM OF THE CATHOLIC HIGH SCHOOL FOR BOYS

A PART OF A DISSERTATION SUBMITTED
TO THE FACULTY OF THE DIVISION OF
THE SOCIAL SCIENCES IN CANDIDACY FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATION

1940

BY
BROTHER WILLIAM MANG, C.S.C.

Private Edition, Distributed by
THE UNIVERSITY OF CHICAGO LIBRARIES
CHICAGO, ILLINOIS
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James F. McElhone, C. S. C.,

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Imprimi Potest

Thomas A. Steiner, C. S. C.,

Provincial.

Imprimatur

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Bishop of Fort Wayne.

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PREFACE

At the turn of the century when the high school was largely a college preparatory institution, its enrolment was relatively small and its curriculum narrow. During the decades since then the secondary-school population has greatly increased, and the high school must now provide educational opportunities for boys and girls from all walks of life, with wide range in mental ability, with many different interests, with diverse ambitions, and with a great variety of educational and vocational plans. In an effort to adapt the school offerings to the changed characteristics of the present-day student body and to make subject matter more functional, teachers, administrators, and college professors have been studying, especially in recent years, the aims of the secondary schools, the interests and activities of pupils, and the nature and needs of adolescents and of society. A considerable part of the activity in education today is concerned with curriculum construction and evaluation.

The present study is an attempt to evaluate the curriculum of the Catholic high school for boys in the states comprising the area of the North Central Association of Colleges and Secondary Schools. The evaluation of the program of studies and of the subject matter of instruction is based on limited aspects of criteria in appraising the curriculum—the objective characteristics and the activities of pupils. Certain characteristics, such as family background, intelligence, success in school work, interests, ambitions, etc., must be known in order that necessary adjustments may be made between the school and the pupil. The activities of students—both those in school and those who have left the school as graduates or non-graduates—must be known in order that it may be seen wherein the school's program is effective or in need of revision.

The writer is under obligation to many persons for assistance, direction, and encouragement in completing this study. He is greatly indebted to the late Reverend James A. Burns, C. S. C., for much helpful advice in making this investigation and for letters of introduction to persons whose cooperation was necessary in gathering the data

presented in this monograph; to the Reverend Thomas A. Steiner, C. S. C., Provincial Superior of the Congregation of Holy Cross, for the opportunity of continuing this study; and to Brother Ephrem, C. S. C., formerly of the Department of Education of the University of Notre Dame, for constructive suggestions in preparing the manuscript and for the critical reading of it.

Grateful acknowledgment is made to the faculty of the Department of Education, University of Chicago, and especially to Dr. Leonard V. Koos, Professor of Secondary Education, who was chairman of the Advisory Committee, and to Dr. William C. Reavis and Dr. Nelson B. Henry, other members of the Committee, for kindly consideration, helpful advice, and personal assistance, graciously rendered.

The writer is grateful to Brother Laurian, C. S. C., for typing parts of the manuscript and for aid in many details; to Brother Marcian, C. S. C., Principal of Cathedral High School, Indianapolis, for assistance in tabulating data in Chapter VIII; to Brother Sebastian, C. S. C., for illustrations in Chapters VII and VIII; to students in the writer's class in Principles of Secondary Education at the University of Notre Dame during the summer session of 1937 for tabulating much of the data in Chapters V and VI; and to the principals of the twenty-one high schools which the writer visited, as well as to principals of other schools included in the study, for their generous cooperation.

Acknowledgment is also made to many authors and publishers for materials quoted or drawn upon throughout this monograph. Citations throughout the book reveal the writer's indebtedness to them and to their contributions.

BROTHER WILLIAM MANG, C. S. C.

Notre Dame, Indiana
1941

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CHAPTER I

INTRODUCTION

THE PURPOSE OF THIS STUDY

During the past two or three decades of phenomenal growth of American secondary schools, the Catholic high schools in the United States also have expanded greatly in number and enrolment.[1] Many articles have been published in periodicals and many papers have been read in educational conventions about the purpose and functions of Catholic secondary schools and their programs of studies, but few of these articles have been based on factual information, and especially on factual data on the Catholic high-school pupil. One of the purposes of the present study is, therefore, to secure data regarding one type of Catholic high school—the high school for boys—and, more especially, to obtain information on the pupils who attend such high schools.

The primary purpose of this study is to evaluate objectively the curriculum of the Catholic high school for boys, or to determine by means of objective data how suitable the curriculum is for the type of pupil enrolled. In view of the intelligence of pupils in the schools, the socio-economic status of their fathers, their plans, their success in the subjects in which they are enrolled, their interests and activities, and the experiences of former pupils, is the curriculum as it operates appropriate for them, or does it harmonize with their interests, their abilities, and their educational and vocational expectations? Stated more in detail:

(1) Are the kinds of curriculums offered of sufficient number and variety to make provision for the interests and abilities and the educational and vocational plans of the pupils enrolled?

(2) Are the subjects offered of such a nature as to provide for both the common and the probable special needs of pupils, or are the offerings largely college preparatory? Is there justification for a large proportion of college preparatory subjects? Are the required subjects too difficult or lacking in interest for large groups of pupils? Did the

1 *High Schools and Academies, Elementary Schools: National Summary*, p. 6. Washington: National Catholic Welfare Conference, 1936.

subjects which former pupils pursued prepare for the type of work the pupils entered, and have these subjects been of practical value?

(3) Does the educational program of the school influence the religious and recreational life of pupils and of former pupils?

SCOPE AND LIMITATIONS

(1) This study is concerned only with Catholic high schools for boys in the twenty states comprising the area of the North Central Association of Colleges and Secondary Schools. Furthermore, the study is limited to non-boarding schools and to schools in which the enrolment is predominantly day pupils.

(2) The term "curriculum" is employed both in a narrow and in a broad sense. In the narrow sense it is used "to mean the arrangement of courses and subjects taken by a pupil or a group of pupils during progress through a secondary school. Ordinarily a curriculum is thought of as a schematic arrangement of courses designed to meet the needs of some particular group of pupils."[2] In the broad sense it is considered as comprising not only the program of studies but also "the things-to-be-learned-by-the-pupils or subject matter, which is capable of systematic treatment or description in writing."[3] Certain activities, such as religious practices, amusements, and reading interests, which may or may not be carried on under the guidance of teachers, will be considered as effects of the curriculum rather than as part of it. Guidance practices and that part of the educational program commonly called extracurricular will not be included in this study.

(3) Moreover, the examination of the curriculum from the point of view of generally accepted pupil and social needs is not attempted, nor is the appraisal made in the light of the aims of secondary education. The evaluation of the curriculum, as was mentioned in the purpose of the study, is made primarily on the bases of the objective data described in the following section. However, the aims of a particular school or groups of schools, or the philosophy they follow, should be taken into consideration in evaluating the offerings.[4] Accordingly, the

[2] Leonard V. Koos, *The American Secondary School,* p. 516. Boston: Ginn and Co., 1927.

[3] From Douglas Waples and Ralph W. Tyler, *Research Methods and Teachers' Problems,* p. 221. New York, 1930. By permission of The Macmillan Company, publishers.

[4] Koos, *op. cit.,* p. 366.

traditional point of view of Catholic education regarding the curriculum will have some bearing on the discussions and the interpretations which are made.

PROCUREMENT OF THE DATA

The data are derived from four sources: (1) Two inquiry forms sent to principals of all Catholic high schools for boys in the North Central Association area; (2) data procured by the writer in visiting twenty-one of these high schools; (3) a follow-up study of former pupils from six high schools; and (4) an examination of textbooks in use in the schools visited.

(1) In March, 1937, a preliminary inquiry form was sent to principals of sixty-six Catholic high schools for boys, together with a form letter explaining the nature and value of the study. A letter of recommendation of the project by the late Reverend James A. Burns, C.S.C., one of the founders of, and officers in, the National Catholic Education Association, was enclosed in each envelope. The list of schools to which the inquiry form was sent was obtained from *The Official Catholic Directory*[5] and was submitted to Mr. James E. Cummings, Assistant Director of the National Catholic Welfare Conference, Department of Education, to supply the names and addresses of any schools not included in the list. In the questionnaire, information was asked regarding the type of school, enrolment, accreditment, number of graduates, and certain other information necessary to select schools to be later visited. In addition, each principal was asked to include the program of studies of his school. Forty-five responses to the first questionnaire were received, and five more were obtained after a follow-up form was sent. As two of the schools were boarding schools primarily, the data concerning them are not included in the study.

In April a second questionnaire was sent to the forty-eight schools from which the first form was received, together with a letter soliciting further information on the numbers of pupils enrolled in the various subjects in the different curriculums, the required and elective courses, the number of units offered in the different subject-groups, and the years in which the subjects were offered. Questionnaires were received from thirty-six schools, and the desired information was obtained from eight others by personal visit.

5 *The Official Catholic Directory*, New York: P. J. Kenedy and Sons, 1936. Pp. iv + 1012.

(2) The second types of data were secured by the writer in visiting twenty-one selected schools among the forty-eight listed in the Appendix and in spending from one to three days in each. Four schools were visited during December and January to secure sample data, and the other seventeen during the following April and May, 1937. In each school the writer verified the data in the first two questionnaires and examined the permanent record cards of all pupils who were in school in 1935-36. The purpose of this examination was to find the numbers of pupils enrolled in the various curriculums and subjects; the numbers failing in subjects during 1935-36; the numbers withdrawing from school or not returning in September, 1936; the number who graduated in June, 1936, and the length of time it took them to complete the high school course; and the number of graduates of 1936 whose credits were requested by colleges and universities. In addition, the *Otis Self-Administering Test of Mental Ability, Higher Examination, Form A,* was given to samples of Seniors, Juniors, Sophomores, and Freshmen in eighteen schools. Two other schools had data from the same intelligence test on hand for all pupils. Student questionnaires were filled out by 7,459 pupils, or 87.6 per cent of the entire enrolments of the twenty-one schools. The subjects which pupils were taking were checked on the questionnaires by those filling them out, and samples were verified by the writer for accuracy. The subjects taken by those who were given the intelligence test were checked by the writer and the averages of pupils' school marks in the subjects they had taken during the preceding semesters of their attendance were entered on the questionnaire form. Finally, the writer secured a list of textbooks in use in the twenty-one schools during 1935-36, conferred with the principals and teachers, and, when time permitted, visited classrooms.

(3) The third kind of data has to do with a follow-up study of former pupils of six of the twenty-one schools. During September, October, and November, 1937, the writer went to eight schools to secure information on graduates and discontinued pupils. Questionnaires with letters signed by the principals were enclosed in envelopes and given to pupils of the schools, for the most part Seniors, who expressed their willingness to contact former pupils. Returns from six schools are included in this study, the number of questionnaires returned from the other two schools not being large enough to warrant inclusion. More than a thousand graduates of the six schools answered the question-

naire, but only about three hundred non-graduates filled out inquiry forms.

The pupils who entered the six high schools in 1928 were contacted through the mail, and a follow-up post card was sent a week later to those who failed to return the inquiry form. Letters signed by the school principal together with questionnaires were sent to the 563 members of the 1928 classes, and fifty-three were returned from the post office because of wrong address or change in address. Five hundred and ten questionnaires, therefore, apparently reached former pupils, and 224, or 43.9 per cent, were returned filled out. Here again the number of non-graduates was comparatively small.

The curriculum pursued by those returning the questionnaire, the subjects they carried while in high school, and their average marks for all subjects were tabulated from the permanent record cards. Finally, the distribution of the average marks of pupils in school since 1921 was found by checking every third card of graduating and non-graduating pupils.

(4) The fourth type of data consists of the aims and content of textbooks used during 1935-36 in the twenty-one high schools, derived from an examination of textbooks most frequently used. These aims and objectives were checked against those for the various subjects as set forth in national surveys, recommendations of commissions and committees, etc. In addition, various school surveys, books, and magazine articles, and other types of literature related to items in the questionnaires were consulted.

METHODS EMPLOYED

In the treatment of the data, use is made of elementary statistical procedures, such as percentages, average, median, quartile deviation, etc. Factual information is presented on the Catholic high school for boys, on the program of studies, on the curriculums offered, the required and elective subjects, on the enrolments in the various subjects, on the time devoted to the subjects, and on the subject-matter that comprises their content. These data which have to do with the curriculum are evaluated on the bases of the ability of pupils, their success in their school work, their family background, their educational and vocational plans, their interests and activities, and the interests and activities of former pupils. In addition, an intensive study is made of more than a thousand

Juniors and Seniors in the different curriculums, and many of the factors mentioned are given in relationship in order to provide further foundation for evaluation.

Comparisons are made throughout with the findings of other studies concerned with pupils and curriculum. The data in these comparative studies are not presented on the assumption that the practices in other schools are always satisfactory, desirable, or valid. They are given to show trends and to aid in interpretation.

PLAN OF PRESENTATION

The order of presentation of the data is outlined in the table of contents. Chapter II deals with the schools—their enrolments, type of school, accreditment, etc. The data for the twenty-one schools visited and for all the schools from which information was received are presented in the tables of this chapter and in those of Chapter III, in which are given data on the program of studies, such as the curriculums offered, required and elective subjects, the numbers of pupils taking the various subjects, and so on. The aims and content of the textbooks most frequently used in the twenty-one schools are given in Chapter IV. Chapter V contains the data on the intelligence of pupils and certain information obtained from the pupil questionnaire, such as socio-economic status and country of birth of fathers, and the educational and vocational plans of pupils. Besides, information gathered from an examination of student record cards, such as the number and percentages of pupils failing in the various subjects, the number and percentage discontinuing, and the number of graduates whose records were sent to colleges and universities, is presented. The interests and activities of pupils are considered in Chapter VI. Chapter VII is an intensive study of more than a thousand Juniors and Seniors in the twenty-one schools. Chapter VIII contains the follow-up study of former pupils on the basis of information obtained from the questionnaire for former pupils and from their permanent record cards. In Chapter IX are presented summaries of the findings of this study, the evaluation of the curriculum, and the conclusions of the study.

REPRESENTATIVENESS AND RELIABILITY OF THE DATA

(1) *Representativeness of the schools visited.* — (a) Twenty-one

different teaching organizations conduct[6] the sixty-four Catholic high schools for boys in the North Central Association area. The teaching organizations are—with the exception of diocesan priests, who conduct five schools—teaching orders or congregations. "Orders" and "congregations" may be used synonymously in interpreting the meaning of the terms. History refers to the Order of St. Benedict, the Order of St. Dominic, etc., and the term here used means the same as the historical one.

The writer visited schools conducted by twelve of these different teaching orders. The nine other teaching groups conduct one school each. In the forty-eight schools from which data were received, only two teaching groups out of twenty-one conducting the sixty-four schools in the North Central Association area are not represented.[7]

(b) With regard to size of schools,[8] the percentages of schools having enrolments over 500 are approximately the same for the twenty-one schools visited and for all sixty-four high schools. Fifteen, or 71.4 per cent, of the twenty-one schools are of medium size (with enrolments from 201 to 500 pupils), and thirty-eight, or 59.4 per cent, of the sixty-four high schools have enrolments in this classification. Only two, or 9.5 per cent, of the twenty-one schools have enrolments of 200 or fewer pupils, and thirteen, or 20.3 per cent, of the sixty-four schools have enrolments of fewer than 201 pupils. The average number of pupils in the twenty-one high schools is 382, and the average enrolment in the sixty-four schools is 375.

(c) The private high schools are usually located in the larger population centers,[9] and this is true generally of the Catholic high schools for boys. The smallest city having a separate Catholic high school for boys had a population in 1930 of approximately 15,000. The twenty-one high schools visited are located in fifteen cities, ranging in population from the third smallest city in which there is a separate Catholic

6 The term "to conduct" as used in this study means that the religious organization supplies teachers for the school and has a large measure of control over the policies in force in the school.

7 Table 3, p. 18.

8 Table 6, p. 21.

9 Biennial Survey of Education in the United States: 1932-34. *Statistics of Private Elementary and Secondary Schools, 1932-33*, pp. 8-9. United States Office of Education Bulletin, 1935, No. 2.

high school for boys to the largest containing such a school. Two of the cities are suburban communities.

(d) Six of the twenty states comprising the North Central Association area contain 81 per cent of the Catholic high schools for boys in the area. The twenty-one schools visited are located in these six states.

(e) As regards types of control,[10] the percentage distribution of the twenty-one schools among central, parochial, and private high schools is almost identical with the percentage distribution of the forty-eight schools.[11] There are no data available concerning the type of control of the remaining sixteen schools from which no answer was received to the questionnaire. None of them, however, according to *The Official Catholic Directory,* is a parochial school.

(f) In the matter of accreditment by the North Central Association, the State Department of Education, or the State University, the percentage distribution of the twenty-one schools and of the forty-eight schools is almost identical.[12]

(g) Finally, the twenty-one schools are representative from the standpoint of tuition fees. The range of tuition for the forty-eight schools as well as for the twenty-one is from no tuition to $150.00 the year, and the average tuition rate per year for each group of schools is approximately the same.[13]

(2) *Representativeness of the student body answering the questionnaire.*—Approximately 90 per cent of the student body of the twenty-one schools, as of September, 1936, answered the questionnaire. Up to the months that the writer was at each school, 328 pupils, or 3.9 per cent of the entire enrolment of all schools combined, had discontinued. In several schools questionnaires were not submitted, inadvertently, to one or more sections or divisions of pupils. That, together with the 4 or 5 per cent of pupils absent on a given day, accounts for a number who did not answer the inquiry form.

In each school the pupils were assured that the contents of the questionnaires were to be used only for tabulation, and that the forms they filled out would not be available to local school authorities. As the

10 See page 16 for definition of type of control.
11 Table 2, p. 16.
12 Table 4, p. 19.
13 Table 5, p. 20.

pupils were in possession of the information asked for in the questionnaire, and, apparently, were willing to give it, the data can be regarded as reliable.[14] Wylie, in a study in which answers by pupils were checked by case workers calling on homes afterwards and by other objective means, concluded that "we may rely upon the answers to a school questionnaire with a reasonably high degree of assurance."[15]

(3) *Representativeness of data on former pupils.*—The method of gathering data on former pupils was by the interview-questionnaire method in four-fifths of the cases. Seniors in high school, for the most part, interviewed the former pupils. Approximately a fifth of the graduates in the six schools responded. The representativeness of the sample was determined by Pearson's Chi-square technique, using achievement in school as a basis. The procedure used is described by Holzinger.[16] Using the formula

$$X^2 = \frac{(f't - ft)^2}{ft}$$

to determine "goodness of fit," X^2 was found to equal 2.9115. By interpolating in Pearson's Table XII,[17] the value of P was found to be .4076. As a value of .2 or more for P is regarded as a good fit,[18] the graduates answering the questionnaire may be regarded as representative of all graduates from the standpoint of scholastic achievement.

The value of P for discontinued pupils was found to be .1616. The sample of discontinued pupils is not, therefore, a representative sample of all those who withdrew from school before graduation.

(4) *Accuracy of the data.*—(a) Tabulation of subjects taken by pupils in twenty-one high schools during 1935-36, of the subjects offered, of the number of pupils failing and withdrawing, and of all other data from the permanent record cards were made by the writer.

(b) Most of the data from the student questionnaires were tabu-

14 Leonard V. Koos, *The Questionnaire in Education,* p. 99. New York: Macmillan Co., 1928.

15 Andrew T. Wylie, "To What Extent May We Rely Upon the Answers to a School Questionnaire?" *Journal of Educational Method,* VI (February, 1927), 257.

16 Karl J. Holzinger, *Statistical Methods for Students in Education,* pp. 245-48. Boston: Ginn and Co., 1928.

17 Karl Pearson, *Tables for Statisticians and Biometricians,* pp. 26-28. Cambridge (England): At the University Press, 1914.

18 Holzinger, *op. cit.,* p. 247.

lated by members of the writer's class in Principles of Secondary Education at the University of Notre Dame. Samples of questionnaires were checked, and where there was suspicion of lack of accuracy, the writer personally tabulated the results. Some answers, such as those on books read by pupils and on the socio-economic status of fathers, were tabulated entirely by the writer. Answers to the inquiry form for former pupils were tabulated by a high school principal and by the writer.

(c) Intelligence tests were checked by Senior N.Y.A. workers in one high school. All the tests were rechecked and the scores recounted by the writer, who also found the intelligence quotients.

(d) The data for the intensive study of samples of Juniors and Seniors in twenty-one high schools—those who both took the intelligence test and filled out questionnaires—were tabulated by the writer on master sheets.

(e) All adding and dividing were done and checked on calculating machines.

RELATED STUDIES

(1) Sister M. Rose Kreibich, F.S.P.A., has recently completed a study of the curriculums of Catholic high schools in the Middle West.[19] The point of view she took in evaluating the curriculum is indicated in the sub-title: "A Critical Study of the Catholic High Schools of Eight States in the Middle West to Determine How Well Their Curricula Serve the Needs of Catholic Youth in the Light of the Philosophy of Catholic Education." All types of schools are included in her investigation: parochial, central, and private high schools, for boys, girls, and for both boys and girls. Sixteen of the schools are for boys exclusively. Forty are private high schools, eighteen are central high schools, and eighty-two are parish high schools.

The major topics treated are the high schools, curriculum changes, present offerings, the student body, curriculum guidance, and the evaluation based on (1) courses desired by pupils and their reasons for attending Catholic high schools; (2) a follow-up study of graduates of two small high schools; (3) the Catholic philosophy of education; and (4) comparison with the offerings in public high schools.

19 Sister M. Rose Kreibich, F.S.P.A., "An Evaluation of Curricula in 140 Catholic Secondary Schools of the Middle West," Unpublished Ph.D. dissertation, Graduate School of St. Louis University, 1938. Pp. xi + 347.

The investigation is based upon the replies to questionnaires which the author sent to principals and to 4,834 Seniors of the different schools, and on catalogues and other descriptive materials from the schools.

The conclusion of the study is that the school offerings are better adapted to the needs and abilities of the average and above-average pupils than to those of lower mental ability.

The manuscript of Sister M. Rose Kreibich's study was not available at the time the present writer was assembling his data, and, therefore, it is not drawn on for comparative purposes.

(2) The title of the dissertation by Brother Francis de Sales, F.S.C., *The Catholic High School Curriculum: Its Development and Present Status,*[20] indicates the nature of his study. He traces through printed sources the development of the curriculum of Catholic high schools and presents a picture of present status based on a questionnaire from 250 Catholic high schools. The high schools, located in forty-two states, are of all sizes and types. The data presented on the curriculum at the time, 1930, deal with (1) the numbers and percentages of schools offering, and the numbers and percentages of pupils taking, the various subjects; (2) the number and description of curriculums offered; and (3) the extracurricular activities. His conclusion is that the offerings are almost purely academic.

(3) The monograph by John R. Rooney on the *Curricular Offerings of Catholic Secondary Schools: An Examination of 283 Institutions,*[21] deals largely with the subjects offered in the schools and the numbers and percentages of pupils taking them. The author presents (1) the number of schools offering work in the various subject-fields, the number of years of work offered in these fields, the percentages of pupils enrolled in the subject-groups, and the time devoted to the subject-groups; (2) the numbers and percentages of pupils enrolled in the subjects offered; (3) the grade placement of the various subjects, and the required subjects; and (4) the time allotments for the different subjects.

20 Brother Francis de Sales, F.S.C., *The Catholic School Curriculum: Its Development and Present Status.* Doctor's dissertation, The Catholic University of America, Washington, D. C., 1930. Pp. v + 62.

21 John R. Rooney, *Curricular Offerings of Catholic Secondary Schools: An Examination of 283 Institutions.* The Catholic University of America Education Research Monograph. No. 4. Washington: The Catholic Education Press, 1931. Pp. 48.

(4) In Koos' *Private and Public Secondary Education,*[22] a chapter is devoted to comparisons of the programs of studies of the public and private high schools in Minnesota. The topics dealt with are: the types of programs of studies, numbers and kinds of curriculums offered, the required subjects in Catholic high schools and in other private high schools, and the total offerings in subjects and subject-groups.

(5) In Cole's study, *Private Secondary Education for Boys in the United States,*[23] a chapter is given to a consideration of the curriculum of private schools, but the schools are largely boarding schools, and many of them are specifically college preparatory. The data are of somewhat the same type as those mentioned in the first three previous studies.

Various other investigations of school offerings and of other topics taken up in the body of the present study are reported in surveys, monographs, and articles in magazines. They will be utilized for purposes of comparison, but as they deal almost exclusively with public schools, they are not referred to in this section of this study.

22 Leonard V. Koos, *Private and Public Secondary Education.* Chicago: University of Chicago Press, 1931. Pp. viii + 228.

23 Robert D. Cole, *Private Secondary Education for Boys in the United States.* Philadelphia: Westbrook Publishing Co., 1928. Pp. xiii + 353.

CHAPTER II

THE CATHOLIC HIGH SCHOOL FOR BOYS

THE PURPOSE OF THE CHAPTER

The purpose of this chapter is to present data on the Catholic high schools for boys in the twenty states of the North Central Association of Colleges and Secondary Schools. The data are concerned with the number, distribution, types of control, teaching organizations, accreditment, tuition charges, and enrolments of the schools.

Two bodies of data are presented parallel to each other: (1) For forty-eight Catholic high schools from which replies were received to the first questionnaire; (2) corresponding data for the twenty-one Catholic high schools which the writer visited. The twenty-one schools are included in the forty-eight, but the data are for 1935-36, whereas the information from the forty-eight schools as a group is for 1936-37.

The reasons for presenting data for the twenty-one schools for 1935-36 are: (1) Four of the schools were visited in the first semester of the school year 1936-37 before the average marks in the different subjects for the first semester were available, and accordingly the marks for the school year 1935-36 were tabulated; (2) the twenty-one schools, in general, promote by subjects on the yearly plan, and, therefore, the yearly average of marks in the different subjects is the basis for promotion and failure. The marks for 1935-36 were the latest ones available. The other data for the twenty-one schools presented in this chapter and in Chapters III and IV and part of Chapter V are also for 1935-36 so as to show pupil achievement in relation to schools, subjects, and content of subjects.

The forty-eight schools are designated as Group I and the twenty-one schools are referred to as Group II.

THE CATHOLIC HIGH SCHOOL

The number of Catholic high schools.—The number of Catholic high schools in the United States as reported for 1934 in the biennial survey of Catholic schools, conducted by the National Catholic Welfare Conference, was 2,159, with one or more schools in every state ex-

cept Nevada.[1] Separate high schools for boys and girls constitute about half the number. In 1928, of 1,950 Catholic high schools, 13 per cent were separate schools for boys, 33 per cent enrolled girls only, and 54 per cent were coeducational.[2]

Of the 2,159 Catholic high schools reported in 1934, 1,011 were located in the North Central Association area.[3] By consulting the *Official Catholic Directory*[4] and by personal correspondence with Mr. James E. Cummings, Assistant Director of the National Catholic Conference, Department of Education, the writer secured the names and addresses of sixty-four Catholic high schools for boys in the North Central Association area that are entirely or predominantly non-boarding schools. This number is 6.3 per cent of all the Catholic secondary schools in the twenty states. Three of the schools are not completely separate boys' schools. In two of the three, boys occupy one part of the building and girls another, forming two departments in the school and each department having its own faculty. Science laboratories, libraries, commercial rooms, etc., are used by both departments. In the third school, separate buildings are used for boys and girls, the same teaching group conducting both sections. In subjects in which small numbers of pupils are enrolled, boys and girls may be grouped together.

The North Central states in which Catholic high schools for boys are located are listed in Table 1. The number and location of schools by states from which replies were received to the first and second questionnaires and the number and location of those from which data were not received are also given. Answers to the first inquiry form were received from forty-eight schools, or 75.0 per cent of all Catholic high schools for boys in the area, and responses to the second form were received from forty-four of these forty-eight schools, or 68.8 per cent of all. The sixty-four schools are in thirteen states, seven states not having, as far as the writer could find, separate Catholic high schools for boys. At least one school from each of twelve of the thirteen states is represented in this study.

1 *High Schools and Academies, Elementary Schools: National Summary,* pp. 11-12.

2 Francis M. Crowley, *The Catholic High-School Principal,* p. 19. New York: Bruce Publishing Co., 1935, citing *Directory of Catholic Colleges and Schools,* 1930.

3 Data derived from *High Schools and Academies, Elementary Schools: National Summary,* pp. 11-12.

4 *The Official Catholic Directory,* pp. iv + 1012.

The city of Chicago has thirteen high schools for boys, conducted by ten different teaching organizations. As an attempt was made to include among the schools visited a wide sampling of teaching groups, six of the twenty-one schools visited are situated in different sections of Chicago. Five are in Illinois outside of Chicago, three are in Indiana, three in Ohio, two in Michigan, one in Wisconsin, and one in Missouri.

The names and locations of the schools considered in this study are given in the Appendix.

TABLE 1

THE NUMBER OF CATHOLIC HIGH SCHOOLS FOR BOYS IN THE NORTH CENTRAL ASSOCIATION STATES AND THE NUMBER FROM WHICH REPLIES WERE RECEIVED TO THE FIRST AND SECOND QUESTIONNAIRES

State	Number of Schools	Replies to First Questionnaire	Replies to Second Questionnaire	No Reply
Arizona	....	....	....	....
Arkansas	1	....	....	1
Colorado	1	1	1	....
Illinois (outside Chicago)	10	9	9	1
Chicago	13	11	11	2
Indiana	4	4	4	....
Iowa	2	2	1	....
Kansas	....	....	....	....
Michigan	6	3	3	3
Minnesota	5	4	1	1
Missouri	6	3	3	3
Montana	1	1	1	....
Nebraska	1	1	1	....
New Mexico	....	....	....	....
North Dakota	....	....	....	....
Ohio	10	5	5	5
Oklahoma	....	....	....	....
South Dakota	....	....	....	....
West Virginia	1	1	1	....
Wisconsin	3	3	3	....
Wyoming	....	....	....	....
Total	64	48	44	16
Percentage	100.0	75.0	68.8	25.0

Types of high schools.—The usual type of Catholic high school is the four-year high school with Grades IX, X, XI, and XII. Fifty-six of the 2,159 secondary schools are six-year junior-senior high schools, sixty-five are three-year junior high schools, and one hundred and seventeen are two-year junior high schools, many being extensions of the

parochial elementary schools.[5] Only one of the sixty-four high schools for boys in the North Central Association area is a six-year high school, the others being the conventional four-year type.

Types of control.—Catholic high schools are usually divided into three types according to the method of control or of financing: (1) Central high schools, drawing pupils from several parishes and supported wholly or in part by endowment, by parishes from which the pupils come, by tuition rates, or by diocesan funds; (2) parochial schools, enrolling pupils largely or entirely from one parish and supported by the parish or partly by the parish and partly by tuition; (3) private high schools, supported by tuition funds and usually owned by the religious teaching body in charge of the school.[6] In the entire country, as shown in Table 2, 55.2 per cent of the Catholic high schools are of the parochial type. In the case of the high schools of this study, however, the central and private types predominate, comprising approximately 96 per cent of the forty-eight schools. The percentages of both types among the twenty-one schools are approximately the same.

The schools designated in the table by the term "institutional" are usually charitable establishments, such as orphanages or detention homes. None are represented in this study.

TABLE 2

NUMBERS AND PERCENTAGES OF CATHOLIC HIGH SCHOOLS ACCORDING TO TYPES OF CONTROL: FORTY-EIGHT CATHOLIC HIGH SCHOOLS FOR BOYS, 1936-1937; TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS, 1935-1936, AND 2,159 CATHOLIC HIGH SCHOOLS, 1933-1934

Type of Control	48 Schools		21 Schools		2,159 Schools*	
	Number	Percentage	Number	Percentage	Number	Percentage
Central	23	47.9	10	47.6	199	9.3
Parochial	2	4.2	1	4.8	1,192	55.2
Private	23	47.9	10	47.6	752	34.8
Institutional	....	....	....	....	16	0.7
Total	48	100.0	21	100.0	2,159	100.0

* *High Schools and Academies, Elementary Schools: National Summary*, p. 8.

5 *High Schools and Academies, Elementary Schools: National Summary*, p. 8.

6 *Ibid.*

As has been stated in Chapter I, the private high school is usually located in the larger population centers.[7] This is probably more true of separate schools for boys than for coeducational schools. The size of the town or city undoubtedly has a bearing, too, on the type of control of the school. In towns or cities where there is a single Catholic parish church, the high school, should there be one, would be a parish high school. In the larger cities where there are many parishes, both economy and efficiency are arguments for the central or the private high school, each generally a larger unit than the parish high school. The fact that the high school for boys is usually found in the larger cities accounts for the large percentage of central and private high schools in this study. In one sense all might be termed central high schools since all draw pupils from more than one parish.

Religious organizations conducting the schools.—In the United States, unlike the practice in other countries, the teaching in Catholic high schools is almost exclusively in the hands of religious orders.[8] This is true also of the Catholic high school for boys. The schools are conducted by groups of religious teachers, although in some, lay teachers, as distinguished from teachers who are members of religious orders or diocesan priests, comprise part of the faculty. As revealed in Table 3, twenty-one different religious organizations have charge of the sixty-four schools in the area, the Brothers of the Christian Schools conducting thirteen; the Brothers of Mary, ten; the Society of Jesus, or the Jesuits, nine; diocesan priests, five; and the Brothers of the Congregation of Holy Cross, five. Two of the schools are conducted by teaching orders of Sisters. All except two of the teaching groups are represented in the forty-eight schools, the two not included having charge of one school each. In the twenty-one schools twelve different teaching organizations are included, the nine teaching groups not represented each having charge of one school. Fifty-five, or 85.9 per cent, of the Catholic high schools for boys in the North Central Association area are controlled by the teaching groups whose institutions the writer visited.

Accreditment.—All the twenty-one high schools and all forty-eight except one are recognized by some accepted accrediting agency. The one exception is a school that was established three years before the

7 P. 7.

8 George Johnson, *Catholic Education,* p. 8. Washington: National Catholic Welfare Conference, 1934.

TABLE 3

THE NUMBER OF CATHOLIC HIGH SCHOOLS FOR BOYS IN THE STATES OF THE NORTH CENTRAL ASSOCIATION CONDUCTED BY THE DIFFERENT RELIGIOUS ORGANIZATIONS AND THE NUMBER OF THE SCHOOLS REPRESENTED IN THIS STUDY

Religious Organization	Number of Schools	Number Represented in This Study	
		Group I	Group II
Brothers of the Christian Schools	13	8	3
Brothers of the Congregation of Holy Cross	5	5	4
Brothers of Mary	10	8	4
Christian Brothers of Ireland	2	2	1
Congregation of the Missions	1	1	1
Congregation of the Resurrection	1	1	....
Congregation of St. Basil	1	....	....
Congregation of St. Viator	1	....	....
Diocesan Priests	5	3	1
Institute of Charity	1	1	....
Marist Brothers of the Schools	1	1	....
Order of Friars Minor	1	1	....
Order of Mount Carmel	2	1	1
Order of Premonstratensians	1	1	....
Order of St. Augustine	2	2	1
Order of St. Benedict	3	2	1
Order of St. Dominic	2	1	1
Order of the Servants of Mary	1	1	....
School Sisters of Notre Dame	1	1	....
Sisters of St. Dominic	1	1	1
Society of Jesus	9	7	2
Total	64	48	21

time this study was begun. In 1936-37 it had pupils enrolled in Grades IX, X, and XI. In 1937-38 when pupils were enrolled in all four high-school grades, it received recognition by the State Department of Public Instruction. In Table 4 are listed the numbers and percentages of schools accredited by the three agencies—the North Central Association of Colleges and Secondary Schools, the State Department of Education, and the State University. Thirty-one of the schools of Group I and thirteen of those of Group II are members of the North Central Association. Fifteen schools in the first group and seven in the second are accredited by all three agencies.

Tuition.—The amount of tuition charged depends to some extent on the type of control of the school. In one of the two parochial schools, the tuition for the year is thirty dollars for pupils who are members of the parish, and forty dollars for those who are not. In the other school

TABLE 4

NUMBER AND PERCENTAGE OF CATHOLIC HIGH SCHOOLS FOR BOYS ACCREDITED BY VARIOUS ACCREDITING AGENCIES

Accrediting Agency	48 Schools		21 Schools	
	Number	Percentage	Number	Percentage
North Central Association	31	64.6	13	61.9
State Department of Education	29	60.4	13	61.9
State University	38	79.2	15	71.4
North Central Association and State Department	3	6.3	2	9.5
North Central Association and State University	15	31.3	7	33.3
State Department of Education and State University	7	14.6	3	14.3
All three agencies	13	27.1	4	19.0
State Department only	6	12.5	4	19.0
State University only	3	6.3	1	4.8
None *	1	2.1	....	....

* A school with only the first three years of high school. In 1937-38 it became a four-year high school.

the pupil pays twenty dollars a year and the parish contributes a like amount. With regard to the central high schools, one school, supported by the parishes, has no tuition charge, and two have charges of fifteen dollars a year, provided the parish of which the pupil is a member contributes to the support of the school; otherwise the tuition is forty dollars the year. The tuition in the private high school is generally higher than in the other two types because receipts from tuition must provide funds for capital outlay, interest, and for current expenses—general control, instruction, maintenance of the school plant, operation, fixed charges, and auxiliary agencies.

In Table 5 is given the distribution of tuition charges among the twenty-one schools of Group II and among the forty-six schools of Group I that supplied the information. The range of tuition is from none to $150.00 a year. The average for the forty-six schools is $75.33, and the median is $76.00. For the twenty-one schools the average is $78.10 and the median, $78.50. The average rate a year for parochial schools is $25.00; for central high schools, $57.86; and for private high schools, $95.65.

No figures are available for the cost per pupil in average daily attendance, but in Catholic schools, as in public ones, the cost per pupil is probably larger in the smaller schools. In the case of the parochial school, the tuition charge takes care of only part of the expense, the remainder being derived from the parish budget.

TABLE 5

THE TUITION PER YEAR IN TWO GROUPS OF CATHOLIC HIGH SCHOOLS FOR BOYS

Dollars	48 Schools: Number	21 Schools: Number
None	1	1
1–15 *	2	....
16–30	5	3
31–45	3	2
46–60	7	2
61–75	5	2
76–90	7	3
91–105	7	2
106–120	3	2
121–135	5	3
136–150	1	1
No answer	2	....
Total	48	21
Median	$76.00 †	$78.50
Average	75.33 †	78.10

* Fifteen dollars when the parish church to which the boy is affiliated contributes to the support of the school; otherwise the full tuition charge of forty dollars a year is charged.

† For forty-six schools.

Size of schools.—The average enrolment of all Catholic high schools in 1934 was one hundred and twenty-six pupils.[9] The average enrolment of all Catholic high schools for boys in the North Central area in 1936-37 was 375; for the forty-eight schools of Group II for the same year it was 372; and for the schools in Group I it was 382 in 1935-36. The numbers and percentages of schools in the three groups, according to size of enrolment, are given in Table 6. Of all sixty-four schools, only thirteen, or 20.3 per cent, have fewer than two hundred pupils, and thirteen others have more than five hundred. The greatest number of schools have between two hundred and five hundred pupils. Almost three-fourths of the schools of Group I have enrolments within these limits. Only two of all sixty-four schools have fewer than one hundred pupils, and one of these, as mentioned previously, was a recently established school that included at the time the data were collected only Grades IX, X, and XI.

The typical Catholic high school for boys in the North Central area has an enrolment of approximately 375 pupils, and it is either a central high school or a privately owned and controlled school. The size of the

9 Data derived from *High Schools and Academies, Elementary School: National Summary*, p. 10.

school and the type of control are due, very probably, to the fact that separate Catholic high schools for boys are usually found in the larger population centers.

TABLE 6

NUMBER AND PERCENTAGE DISTRIBUTION BY SIZE OF ENROLMENT OF SIXTY-FOUR CATHOLIC HIGH SCHOOLS FOR BOYS, 1935-1936; OF FORTY-EIGHT CATHOLIC HIGH SCHOOLS FOR BOYS, 1936-1937; OF TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS, 1935-1936; AND THE AVERAGE ENROLMENT OF EACH GROUP

Size of Enrolment	64 Schools		48 Schools		21 Schools	
	Number	Percentage	Number	Percentage	Number	Percentage
1–100	2	3.1	2	4.2	....	....
101–200	11	17.2	8	16.7	2	9.5
201–500	38	59.4	29	60.4	15	71.4
Over 500	13	20.3	9	18.7	4	19.0
Total	64	100.0	48	100.0	21	99.9
Average enrolment	375		372		382	

Enrolment by grades.—The holding power of a school is indicated to some extent by the percentage distribution of pupils in the different grades. In Table 7 are given the numbers and percentages of pupils in each of the four years of high school in the two groups of Catholic schools, and the percentages in the four high-school grades in 1,935 private schools and in the public high schools of the United States. The enrolments for the forty-eight schools for 1936-37 were supplied by principals in filling out the first questionnaire. Those for the twenty-one schools for 1935-36 were gathered personally by the writer by counting all permanent record cards of pupils who were in school and of those who had discontinued up to the time of the visit.

The percentages are nearly equal for each respective grade in the forty-eight Catholic high schools and in public schools. The percentage distribution of enrolments by grades of the twenty-one schools runs parallel to those of the forty-eight schools and to public high schools in second and third years, but is lower for Freshmen and higher for Seniors. This is probably a more accurate distribution than that of the forty-eight schools, not only because of the care taken in counting the cards of pupils enrolled for 1935-36, but principally for the reason that

fewer pupils drop out of school during the Junior year of high school than during the first two years. In Chapter v data are presented that bear out this contention. Of 1,004 discontinued pupils, 43.4 per cent were Freshmen, 32.8 per cent were Sophomores, 19.5 per cent were Juniors, and 4.3 per cent were Seniors. The percentage in each grade of the twenty-one schools is very much the same as that for all private schools.

TABLE 7

NUMBER AND PERCENTAGE OF PUPILS IN EACH HIGH SCHOOL GRADE IN FORTY-EIGHT CATHOLIC HIGH SCHOOLS FOR BOYS, 1936-1937, AND IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS, 1935-1936; AND THE PERCENTAGE IN EACH GRADE IN PRIVATE SECONDARY SCHOOLS, 1932-1933, AND IN PUBLIC HIGH SCHOOLS, 1933-1934

High School Grades	48 Schools		21 Schools		Private High Schools *	Public High Schools †
	Number	Percentage	Number	Percentage	Percentage	Percentage
Freshman	5,802	32.5	2,456	30.6	29.8	32.5
Sophomore	4,745	26.6	2,099	26.2	25.9	27.4
Junior	3,944	22.1	1,792	22.3	22.5	21.9
Senior	3,366	18.8	1,678	20.9	21.2	18.2
Total	17,857	100.0	8,025	100.0	99.4	100.0

* Biennial Survey of Education in the United States: 1932-34. *Statistics of Private Elementary and Secondary Schools*, 1932-33, p. 19. United States Office of Education Bulletin, 1935, No. 2.

† Biennial Survey of Education in the United States: 1932-34. *Statistics of Public Schools*, 1933-1934, p. 9. United States Office of Education Bulletin, 1935, No. 2.

SUMMARY OF THE CHAPTER

Data for the forty-eight schools of Group I and for the twenty-one schools of Group II are so similar that the points taken up in this summary apply to both groups of schools.

Location.—The Catholic high schools for boys in the twenty states comprising the North Central Association of Colleges and Secondary Schools are usually located in the larger cities where there are several Catholic parishes or churches from which to draw pupils.

Types of control.—According to type of control, almost all the schools are central high schools in the sense that they draw pupils from more than one parish, as distinguished from parochial schools, which are supported by and draw pupils from only one parish. Approximately half

the schools are private high schools; that is, the buildings are owned by those conducting the schools.

Average size of schools.—Owing to the fact that the Catholic high schools for boys are located in the larger population centers and are central high schools, the average enrolment is approximately 375 pupils, or three times as large as the average Catholic high school in the country generally.

Teachers.—The Catholic high school for boys is usually conducted by a religious order of men.

Tuition.—The tuition charge ranges from none to $150 a year. The average tuition rate is approximately $75 a year. The private Catholic high schools have a higher average than the other types because the tuition must provide for both capital outlay and current expenses.

Accreditment.—The Catholic high school for boys is accredited by the North Central Association, the State Department of Education, or the State University, and in most cases by two or three of these agencies.

CHAPTER III

THE PROGRAM OF STUDIES

THE PURPOSE OF THE CHAPTER

In the present chapter are presented the administrative plans of the program of studies, the entire school offerings, the required and elective subjects, the percentages of pupils enrolled in the various subjects, and the percentage of recitation time devoted to the different subject-groups.

The data are for the two groups of schools mentioned in the preceding chapter: that is, for the forty-eight schools of Group I and for the twenty-one schools of Group II. Programs of studies were received from forty-seven schools, and the second questionnaire, on the numbers of pupils carrying the diffeent subjects, was secured from forty-four schools.

In tables in which percentages or averages for both groups of schools are almost identical, data for the schools of Group I will be omitted.

THE PROGRAM OF STUDIES

Definition of terms.—The definitions of "program of studies" and "curriculum" employed in this chapter are those used by Koos. The term "program of studies" "refers to the entire offering of subjects and courses in a given school, including its plan of organization and other features of its administration."[1] "Curriculum" is used "to mean the arrangement of courses or subjects taken by a pupil or a group of pupils during progress through a secondary school. Ordinarily a curriculum is thought of as a schematic arrangement of courses designed to meet the needs of some particular group of pupils."[2] Thus, there are the college preparatory curriculum, the commercial curriculum, etc., the term being here used in a narrower sense than in the broad definition given in Chapter I.[3]

The school offering or program of studies is organized for purposes

1 Leonard V. Koos, *The American Secondary School,* p. 516. Boston: Ginn and Co., 1927.
2 *Ibid.*
3 P. 2.

of administration according to some pattern or type. Koos distinguishes the following four forms of organization or subject arrangements:

> (1) The *single-curriculum type*, which requires identical work of all pupils throughout the four years. . . . (2) The *multiple-curriculum type* of program of studies sets up two or more curricula, one of which the pupil selects and is presumed to follow throughout the four-year period. In its "pure" form . . . all the subjects in each year are prescribed, no variation being allowed except in selecting the curriculum pursued. . . . (3) The *constants-with-variables type* is one in which certain subjects of study are designated as constants, — that is, as required of all pupils, — the remainder of the work being selected from additional subjects listed for each year. (4) The *combination type* is a hybrid of the two types last illustrated, its characteristics being drawn from both. It provides for two or more curricula, as does the pure multiple-curriculum type and, at the same time, allows for election of a part of the work during one or more of the four years. . . .[4]

The program of studies in Catholic high schools.—Programs of studies were received from forty-seven of the Catholic high schools for boys. None of the schools has the single-type curriculum, a form with an offering of sixteen units usually found only in small high schools.[5] The numbers and percentages of schools using the different types of programs of studies in the two groups of Catholic high schools and in 2,558 North Central Association schools are given in Table 8. The combination-type is used in more than half of the schools of Group I, twenty-four, or 51.0 per cent, of the schools employing this pattern of subject administration. Twenty-one, or 44.7 per cent, employ the constants-with-variables type, and only two schools have the pure multiple-curriculum type. In the twenty-one schools of Group II, two use the pure multiple-curriculum type; and eight, or 38.1 per cent, have the combination type. In 2,558 high schools of the North Central Association, 51.3 per cent employ the constants-with-variables curriculum type, approximately the same percentage as in the case of the schools of Group I.

The constants-with-variables type of curriculum is, perhaps, the most serviceable method of organizing the program of studies when the entire offering is not large. The total offering of the Catholic high schools of this study is rather limited, the average number of units for the forty-seven schools being 29.4, and for the twenty-one schools, 29.9. The fact that the constants-with-variables type of program is rather hard to administer, requiring as it does a great amount of guidance,[6] is

4 Leonard V. Koos, *The American Secondary School*, pp. 518-20. Boston: Ginn and Co., 1927.

5 *Ibid.*, p. 519.

6 *Ibid.*, p. 525.

not such a handicap in the Catholic high schools here studied, for, as will be illustrated further on, the subjects of the first two years are prescribed in almost all schools,[7] and the number of units required for four years, excluding religion, is 11.9.[8]

TABLE 8

DISTRIBUTION OF PROGRAMS OF STUDIES BY TYPES IN TWO GROUPS OF CATHOLIC HIGH SCHOOLS AND IN 2,558 NORTH CENTRAL ASSOCIATION SCHOOLS

Types of Program of Studies	Group I: 47 Schools		Group II: 21 Schools		2,558 North Central Association Schools*	
	Number	Percentage	Number	Percentage	Number	Percentage
Single-curriculum type	....	....	....	....	168	6.6
Pure multiple-curriculum type	2	4.3	2	9.5	692	27.0
Constants-with-variables type	21	44.7	11	52.4	1,312	51.3
Combination type	24	51.0	8	38.1	386	15.1
Total	47	100.0	21	100.0	2,558	100.0

* H. G. Hotz, "Five-Year Trends in the Development of North Central Association High Schools, 1930-1935," *North Central Association Quarterly*, X (April, 1936), 419.

Size of enrolment does not seem to have much influence on the type of program-of-studies organization in these Catholic high schools for boys. Of ten schools with enrolments of two hundred or fewer pupils, six have the constants-with-variables type and four have the combination pattern; while of nine schools with a student body of over five hundred, four have the constants-with-variables type and five employ the combination type.

The kinds of curriculums.—The number of names for the different kinds of curriculums in high schools is extensive, one hundred and thirty different titles having been listed by Good and Good, but many of the curriculums with practically the same offering are different in name only.[9] The academic, classical, college preparatory, commercial, general, and scientific curriculums are among those mentioned most frequently.[10]

7 P. 42.
8 Table 16, p. 38.
9 Carter V. Good and Raymond E. Good, "Titles of Curriculums Offered and Suggested in Secondary Schools," *School Review*, XXXV (September, 1927), 506-8.
10 *Ibid.*

There is not such a great variety of nomenclature for curriculums among the Catholic high schools for boys, but there is duplication, nevertheless. As the curriculums are devised to meet the needs of different groups of pupils, the kinds offered give an indication of what the schools attempt to do.

The names of the curriculums provided in the twenty-six schools of Group I and in the ten schools of Group II, having the multiple-curriculum type and the combination type of curriculum organization, are given in Table 9. Thirteen different kinds of curriculums are offered in the twenty-six schools and twelve in the ten schools. In the schools of Group I the terms "academic curriculum" and "scientific curriculum" are each employed fifteen times. The commercial curriculum is the third most frequently offered, fourteen of the twenty-six schools having it. The general curriculum, including the "English" curriculum, is offered in thirteen schools, and the classical in ten. Although approximately three-fifths of the curriculums offered are college preparatory in that the subjects required are those usually demanded for college entrance, the term "college preparatory" is used only by two schools to designate a curriculum.

In the ten schools of Group II the kinds of curriculums correspond to those of the schools of Group I. The scientific curriculum is listed most frequently, seven of the schools offering it.

In general, it may be said that with few exceptions all the curriculums are college preparatory in the sense that minimum requirements for college entrance are imposed. Nine of the thirteen schools offering the general curriculum require in it subjects demanded by colleges for entrance. The same is true for eleven of the fourteen schools offering the commercial curriculum. The one school having a technical curriculum requires as part of it the necessary college entrance units. The curriculum with the title "vocational" is in reality a commercial curriculum that does not prepare for college entrance.

The usual subject requirements in all curriculums that are college preparatory in minimum essentials are: three or four years of religion, three or four units in English, two in mathematics, two in foreign language (usually Latin), one in science, and one in social science. In the academic curriculum, which is definitely college preparatory, the subjects mentioned above are required and, sometimes in addition, two units

TABLE 9

NUMBERS AND KINDS OF CURRICULUMS OFFERED IN TWENTY-SIX SCHOOLS, 1936-1937, AND IN TEN SCHOOLS, 1935-1936

Kinds of Curriculums	26 Schools	10 Schools
	Number	Number
Academic	15	4
Classical	10	4
Scientific	15	7
Commercial	14	5
Vocational	1	----
Fine arts (music)	1	1
Liberal arts	1	1
General	11	3
Science and engineering	1	1
College preparatory	2	1
Latin-English	2	1
English	2	1
Technical	1	1
Total	76	30

in a modern foreign language or a third and a fourth year of Latin, and a third unit in mathematics. Usually, too, one or two additional units in the social studies are constants. In the classical curriculum, four years of Latin, and, in schools teaching Greek, two years of Greek are requisites, as also are four units in English, one or two in social studies, two in mathematics, and one in science. In the scientific curriculum three years of mathematics and three years of science must be carried along with the usual other units. In eleven of the fourteen schools with commercial curriculums, in addition to units necessary for college entrance, three or more units in commercial subjects are demanded. The general curriculum in nine of the thirteen schools offering it is merely one of minimum college entrance requirements. All the schools having general curriculums require three or four years of religion and four units of English; eleven of the schools require a unit in algebra and one in geometry; nine, a unit of science; nine, two years of foreign language; and ten require two or more units in the social studies. The number of electives is three, four, or five. No matter what curriculum a pupil pursues, three or four years of religion are required of all Catholic boys.

There is no special religious curriculum in the Catholic high school for boys, although each school requires Catholic pupils to take courses in religion. The Catholic high school is not a religious school in the

sense that its primary purpose is to prepare pupils to engage in religious work such as that of the priesthood or of the religious orders. Purely preparatory religious work is confined to seminaries or to novitiates of the religious orders.

It is evident from Table 9 that the Catholic high school for boys usually does not provide industrial-arts curriculums, only two being offered in the twenty-six schools; and only four schools offer courses that are usually designated by the term "shop." Nine of the schools offer mechanical drawing. Tradition, probably, and the expense of industrial-arts work militate against the inclusion of such curriculums in the Catholic high schools.

The number of curriculums offered.—The total numbers of curriculums offered in the twenty-six schools of Group I and in the ten schools of Group II having the multiple-curriculum or the combination type are seventy-six and thirty, respectively. The numbers of schools in both groups offering two, three, or four curriculums, and also the average number of curriculums per school for the two groups of Catholic schools and for three groups of public schools are given in Table 10. In Group II schools, three offer two curriculums, four offer three, and three offer four. In the schools of Group I, six have two curriculums, sixteen have three, and four have four curriculums. In Group I the average number of curriculums to the school is 2.9 and in the schools of Group II it is 3.0. No school reported more than four curriculums. The average number for 2,558 North Central Association schools, which includes large and small institutions, both public and private, is 3.8. In two groups of schools investigated by members of the staff of the National Survey of Secondary Education, the average number of curriculums is 4.72 and 4.64. The schools are located in cities from 2,500 to 20,000 population according to the 1920 census reports.[11]

In the schools of Group I, of the six offering two curriculums, the academic curriculum is offered in five, the commercial in four, the scientific in one, the college preparatory in one, and the vocational in one.

In the sixteen schools of Group I offering three curriculums, eleven have the scientific curriculum, ten the academic, nine the general, eight

11 A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson, *The Program of Studies*, p. 113. National Survey of Secondary Education Monograph, No. 19. United States Office of Education Bulletin No. 17, 1932.

the commercial, eight the classical, one the Latin-English, and one the college preparatory.

TABLE 10

THE NUMBER OF CURRICULUMS OFFERED IN TWENTY-SIX SCHOOLS, 1936-1937; IN TEN SCHOOLS, 1935-1936; IN 2,558 NORTH CENTRAL ASSOCIATION SCHOOLS, 1934-1935; AND IN TWO GROUPS OF SCHOOLS REPORTED IN THE NATIONAL SURVEY OF SECONDARY EDUCATION, 1930-1931

Groups of Schools	Number of Curriculums			Total Number of Curriculums	Total Number of Schools	Average Number of Curriculums
	2	3	4			
26 Schools	6	16	4	76	26	2.9
10 Schools	3	4	3	30	10	3.0
2,558 North Central Association Schools*	....	....	....	9,786	2,558	3.8
32 Schools †	....	....	....	151	32	4.72
96 Schools †	....	....	....	445	96	4.64

* Hotz, *op. cit.*, p. 419.
† Loomis, Lide, and Johnson, *op. cit.*, p. 121.

Ten different names are applied to the sixteen curriculums in the four schools offering four curriculums. The scientific curriculum is offered by four schools, the general by four, the classical by three, the commercial by two, and the liberal arts, the fine arts, and the technical by one school each. The term "academic" is not used to designate a curriculum by the schools offering four curriculums.

In Table 11 all the curriculums offered are grouped into three kinds: college preparatory, general, and practical arts and others. The first category includes the academic, liberal arts, scientific, science and engineering, classical, college preparatory, and Latin-English curriculums. The general and the English curriculum are classed under the second. Commercial and all other curriculums are grouped under the third. It is evident that the Catholic high school for boys emphasizes the college preparatory function. Commercial curriculums are offered in approximately half the schools, and those curriculums grouped under "practical arts and others" are, for the most part, commercial. The average number of college preparatory curriculums is 1.8; of general, 0.5; and of practical arts and others, 0.7.

The two groups of public schools in the North Central states stress the college preparatory curriculums almost as much as the Catholic high schools do as far as the average number of such curriculums is concerned.

The average number of college preparatory curriculums in the four different groups of schools is: Group I, twenty-six schools, 1.8; Group II, ten schools, 1.9; 2,558 North Central Association high schools, 1.5; and thirty-five public high schools in the North Central Association, 1.7. The average number of general curriculums for the four groups of schools respectively is 0.5, 0.4, 0.7, and 0.7. Both groups of North Central schools greatly exceed the schools of this study in the number of practical-arts and other curriculums offered. The average number of these curriculums in the schools reported by Hotz is 1.6, and in those investigated by Van Dyke, 2.7. The average number for each group of Catholic high schools is 0.7.

TABLE 11

AVERAGE NUMBER OF KINDS OF CURRICULUMS OFFERED IN TWO GROUPS OF CATHOLIC HIGH SCHOOLS FOR BOYS, IN 2,558 NORTH CENTRAL ASSOCIATION SCHOOLS, AND IN THIRTY-FIVE PUBLIC HIGH SCHOOLS IN THE NORTH CENTRAL ASSOCIATION

Groups of Schools	College Preparatory		General		Practical Arts and Others		Total	
	Number	Average Number	Number	Average Number	Number	Average Number	Number	Average Number
26 Schools	46	1.8	13	0.5	17	0.7	76	3.0
10 Schools	19	1.9	4	0.4	7	0.7	30	3.0
2,558 North Central Association Schools *	3,810	1.5	1,915	0.7	4,061	1.6	9,786	3.8
35 Public Schools †	....	1.7	....	0.7	....	2.7	....	5.1

* Derived from Hotz, *op. cit.*, p. 419.

† George E. Van Dyke, "Trends in the Development of the High-School Offering, I," *School Review*, XXXIX (November, 1931), 662.

The percentage distribution of the college preparatory, the general, and the practical-arts and other curriculums for the four groups of high schools mentioned above and for two groups of Catholic high schools is presented in Table 12. In the four groups of Catholic high schools more than 50 per cent of the curriculums in each case are college preparatory. In the two groups of North Central Association schools, the greatest percentage of curriculums comes under the third classification—practical arts and others. In the schools reported by Hotz, 41.5 per cent of the curriculums come under the third classification; in Van Dyke's study, 52.0 per cent of the curriculums are so classified.

The percentages representing the different kinds of curriculums of-

fered in the four groups of Catholic high schools indicate that the schools reported in the present study are more conservative from the point of view of curriculums offered than are the Catholic high schools generally. The data reported by Brother Francis de Sales and by Rooney for all types of schools, separate boys' and girls' high schools and coeducational schools, show that these Catholic high schools offer smaller percentages of college preparatory curriculums and more in the general and the practical arts and others than does either group of boys' schools considered in this study.

TABLE 12

NUMBERS AND PERCENTAGES OF COLLEGE PREPARATORY, GENERAL, AND PRACTICAL-ARTS AND OTHER CURRICULUMS OFFERED IN TWO GROUPS OF CATHOLIC HIGH SCHOOLS FOR BOYS, IN TWO OTHER GROUPS OF CATHOLIC HIGH SCHOOLS, AND IN TWO GROUPS OF NORTH CENTRAL ASSOCIATION SCHOOLS

Groups of Schools	College Preparatory		General		Practical Arts and Others		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
26 Schools	46	60.5	13	17.1	17	22.4	76	100.0
10 Schools	19	63.3	4	13.3	7	23.3	30	99.9
250 Catholic high schools*	340	51.9	132	20.2	183	27.9	655	100.0
283 Catholic high schools†	366	53.0	145	21.0	179	25.9	690	99.9
2,558 North Central Association high schools‡	3,810	38.9	1,915	19.6	4,061	41.5	9,786	100.0
35 Schools §	....	33.5	....	14.5	....	52.0	....	100.0

* Brother Francis de Sales, F.S.C., *op. cit.*, p. 44.
† Adapted from Rooney, *op. cit.*, p. 35.
‡ Adapted from Hotz, *op. cit.*, p. 419.
§ George E. Van Dyke, "Trends in the Development of the High-School Offering, I," *School Review*, xxxix (November, 1931), 663.

The numbers of pupils enrolled in the curriculums.—The second questionnaire, which called for the numbers of pupils enrolled in the different subjects, was received from forty-four schools. From these data the numbers of Juniors and Seniors pursuing four kinds of curriculums, —the academic, scientific, general, and commercial—were derived for the schools of Group I. In the case of schools of Group II, the numbers of pupils taking the different curriculums were counted at the time these schools were visited. The writer attempted to find the numbers of pupils taking the four kinds of curriculums or their equivalents in schools having the constants-with-variables type of organization, but the numbers are little more than approximations. Pupils carrying third or fourth-year Latin or modern foreign language in the Junior or Senior

TABLE 13

NUMBERS AND PERCENTAGES OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS

Curriculums	44 Schools		21 Schools	
	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
*Combination and pure multiple-curriculum types:**				
Academic				
Juniors	910	38.8	391	40.5
Seniors	716	36.1	355	39.8
All	1626	37.6	746	40.2
Scientific				
Juniors	601	25.6	293	30.4
Seniors	507	25.6	285	31.9
All	1108	25.6	578	31.1
General				
Juniors	354	15.1	147	15.2
Seniors	366	18.5	149	16.7
All	720	16.6	296	15.9
Commercial				
Juniors	479	20.4	134	13.9
Seniors	394	19.9	104	11.6
All	873	20.2	238	12.8
Constants-with-variables types:†				
Academic				
Juniors	595	44.7	281	34.0
Seniors	433	36.4	317	40.4
All	1028	40.8	598	37.1
Scientific				
Juniors	346	26.0	211	25.5
Seniors	344	28.9	178	22.7
All	690	27.4	389	24.1
General				
Juniors	62	4.7	35	4.2
Seniors	65	5.5	36	4.6
All	127	5.0	71	4.4
Commercial				
Juniors	327	24.7	300	36.3
Seniors	346	29.1	254	32.4
All	673	26.8	554	34.4

* Twenty-four of Group I schools and ten of Group II have the combination and pure multiple-curriculum types.

† Twenty of Group I schools and eleven of Group II have the constants-with-variables type of curriculum.

year were considered as following the academic curriculum. Those who were taking Junior or Senior science and advanced mathematics were placed in the scientific curriculum. Juniors and Seniors following such subjects as shorthand and bookkeeping were judged to be following commercial curriculums. All others were placed in the general curriculum group. Juniors and Seniors only are considered because in most of the Catholic high schools in this study, the first two years are rather standardized and the subjects are required, as a rule. Curriculum specialization usually begins with the third year.

The numbers and percentages of Juniors and Seniors combined in the different curriculums are shown in Table 13. In the schools with the combination or the multiple-curriculum type, almost two-thirds of the pupils in the schools of Group I and almost three-fourths of those in schools of Group II are enrolled in either the academic or scientific curriculums, which are college preparatory. Six of the schools in Group I and three of those in Group II offer college preparatory curriculums exclusively. The general curriculum is followed by 16.6 per cent of the Juniors and Seniors in Group I schools and by 15.9 per cent of those in the schools of Group II. In the commercial curriculums the percentages are 20.2 and 12.8 for schools of Group I and Group II, respectively.

As was stated above, the numbers and percentages of Juniors and Seniors following the different kinds of curriculums of the constants-with-variables type are merely approximations. The small percentage of pupils following the general curriculum can be explained by the statement made previously:[12] The general curriculum is one of minimum college entrance requirements. Pupils pursuing it take, for the most part, subjects that place them under the academic or scientific curriculum. The large number and percentage estimated as taking the commercial curriculum indicate that some of the pupils in the other three kinds take commercial subjects as their electives. This is probably more often true of the pupils following the general curriculum than of those in the academic or scientific curriculums.

THE SCHOOL SUBJECTS

The total offering.—The total number of units offered in the different subject-fields in the twenty-one high schools and the percentage that the offering in each subject is of the entire offerings are presented in

12 P. 28.

Table 14. As religion is taught from two to five periods a week in the different schools, it was necessary to compute the number of units in religion on the basis of "a unit being a course of five periods weekly throughout an academic year. . . ."[13] The average number of periods a week of religious instruction in all schools is four.

TABLE 14

TOTAL NUMBER OF UNITS IN EACH SUBJECT-GROUP IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS AND THE PERCENTAGE THAT THE OFFERING IN EACH SUBJECT-GROUP IS OF THE ENTIRE OFFERING

Subject-Groups	Total Number of Units	Percentage of Entire Offering
Religion	65.0	10.3
English	85.0	13.5
History	49.0	7.8
Other social studies	30.0	4.8
Mathematics	73.5	11.7
Ancient languages	88.0	14.0
Modern foreign languages	64.0	10.2
Science	58.0	9.2
Commercial subjects	60.0	9.5
Industrial arts	11.0	1.7
Physical education	8.3	1.3
Health education	1.5	0.2
Fine arts	36.3	5.8
Total	629.6	100.0

Physical education is offered in sixteen schools and music in nineteen, but credit towards graduation is allowed in five schools for the former subject and in nine schools for the latter. The number of units offered in each of these subjects was computed on the basis that ten periods a week for a year comprise a unit.

The outstanding fact presented in the table is the large proportion of foreign language, approximately a fourth of the entire school offerings consisting of ancient and modern languages. The fine arts consist almost entirely of group music. The graphic and plastic arts are almost entirely neglected, only one school offering work in the graphic and plastic arts—a half unit in commercial art.

13 The Carnegie Foundation for the Advancement of Teaching, *First Annual Report*, p. 38. Washington Office, 1906.

Approximately 75 per cent of the entire offerings is in the five academic subject-fields. In public schools the percentage of courses in the academic subjects has been steadily shrinking in comparison with that of subjects in the specialized fields.[14] In 1930 for thirty-five public high schools in the North Central Association, 50 per cent of the entire number of courses offered consisted of academic subjects.[15]

In Table 15 are presented the average number of units offered in twenty-one Catholic high schools and the numbers of units offered in the median school of fifty-two medium-sized high schools employing the constants-with-variables type of program. The largest number of units devoted to any subject-group in the Catholic high schools is in foreign language. The neglect of industrial-arts subjects is again evident. The average number of units in the entire offering, including religion, is 29.9.

The offerings of the Catholic high schools of this study and of the public high school represented in Table 15 do not differ greatly in the number of units offered in English, the social subjects, and mathematics, but the number of units in foreign language is larger in the Catholic high schools than in the public school. The public school has larger offerings in science, commercial subjects, and industrial arts than the group of Catholic high schools.

The median school does not offer units in either physical education, music, or art, but the range of units offered by the middle 50 per cent of schools is 0.0-1.7 for physical education and 0.0-2.6 for music.[16]

The authors of the monograph, *The Program of Studies,* in the National Survey of Secondary Education have presented separately the offerings of the schools employing the constants-with-variables type of program from the offerings of schools using the combination type. The average number of units in the different subjects in the schools employing the combination type of curriculum does not differ greatly, however, from that presented for the median school using the constants-with-variables type.[17] The average number of units offered in both fine arts

14 George E. Van Dyke, "Trends in the Development of the High-School Offering, II." *School Review*, XXXIX (December, 1931), 744.

15 *Ibid.*

16 Loomis, Lide, and Johnson, *op. cit.*, p. 128.

17 *Ibid.*, p. 126.

TABLE 15

AVERAGE NUMBER OF UNITS OFFERED IN THE DIFFERENT SUBJECT-GROUPS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS AND THE NUMBER OF UNITS OFFERED IN THE MEDIAN SCHOOL IN FIFTY-TWO PUBLIC HIGH SCHOOLS, 1930-31, EMPLOYING THE CONSTANTS-WITH-VARIABLES TYPE OF PROGRAM

Subject-Groups	21 Catholic High Schools	Median High School *
Religion	3.1	....
English	4.0	4.4
History	2.3	2.9
Other social studies	1.4	1.9
Mathematics	3.5	3.6
Foreign Language	7.2	5.7
Science	2.8	4.0
Commercial subjects	2.9	5.6
Industrial arts	0.5	2.1
Home economics	....	2.2
Physical education	0.4	....
Health education	0.1	....
Fine arts	1.7	....
Total	29.9	32.4

* Loomis, Lide, and Johnson, *op. cit.*, p. 128.

and physical education in schools with the combination type of curriculum is approximately one-half. [18]

The ten Catholic high schools employing the combination or the pure multiple-curriculum type of organization have a slightly higher average total number of units than have the eleven schools administering the curriculum according to the constants-with-variables type. The average number of units in the former group of schools is 31.0 and in the latter, 29.1.

Required subjects.—The subjects required of all pupils give some idea of what phase of life preparation a school stresses. This is not so true of the number of the constants required as of the nature of the subjects. For example, a particular school might accept as its goal the transmission of the social heritage or a knowledge of the great social institutions. All general education to the end of the junior college might be devoted to the attainment of this end and all work offered might be required. On the other hand, preparation for college might be emphasized in another school, and all or part of the work might be pre-

18 *Ibid.*, pp. 131-32. (Data derived by the present writer.)

scribed. But the nature of the constants required by a college preparatory school might be very different from that required by a school emphasizing transmission of the social heritage.

The average number of units required in the different subject-groups in the Catholic high schools and the average number required by the Departments of Education in the twenty North Central Association states are given in Table 16. The state requirements are introduced, not to intimate that they are desirable for Catholic or public schools, but to show how far beyond these minimum requirements the Catholic high schools go. The subjects uniformly required in the accrediting region are English and the social studies. In the Catholic high schools of this

TABLE 16

AVERAGE NUMBER OF UNITS IN THE DIFFERENT SUBJECT-GROUPS REQUIRED OF ALL PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS AND BY THE STATE DEPARTMENTS OF EDUCATION IN THE TWENTY NORTH CENTRAL ASSOCIATION STATES ACCORDING TO STATE SUPERINTENDENTS OF INSTRUCTION

Subject-Groups	21 Schools	20 States *
	Average Number of Units Required	Average Number of Units Required
Religion	3.1	....
English	4.0	3.2
Social studies	2.3	1.8
Mathematics	1.9	0.7
Foreign language	1.8	0.1
Natural science	1.5	0.7
Physical education	0.4	....
Total required	15.0	6.5
Total required excluding religion and physical education	11.5	6.5

* "Curriculum Trends—A Symposium." G. W. Willett, "Subjects Required for Graduation from High School in the Several States of the Association," *North Central Association Quarterly*, XII (January, 1938), 346.

study work is required, generally, in five academic subject-groups and in religion. Approximately three units in religion are required, but, as a rule, no academic credit is allowed for this work. Four years of English are required in all schools except one. All schools require social studies, the average number of units being 2.3, one of which is usually European

or world history and the rest about equally divided between American history and some other social study, usually civics. The average number of units of mathematics required is 1.9, generally algebra and geometry. More than a unit and a half in foreign language is required on the average, Latin being the language usually taken. In science the average number of units required is 1.5. In physical education, which must be taken in more than three-fourths of the schools, 0.4 of a unit is required, but credit toward graduation is allowed for this subject in only five schools. The total number of units required, excluding religion and physical education, is 11.5. The average number of required units in the twenty North Central Association states is 6.5. It is evident that the required subjects in the Catholic high schools under consideration are essentially those demanded for entrance to college.

The percentage distribution of constants in the different subject fields in the twenty-one Catholic high schools and also in public schools in fifteen cities and in thirty-four private schools are presented in Table 17. Practically all of the constants are in the academic fields and in religion in the Catholic high schools. The outstanding differences bebetween the percentages of required subjects in the Catholic and in the public schools are in religion, mathematics, fine arts, and foreign language. In practice, there is not much difference in the requirement for physical education or in the number of pupils enrolled in the subject, as will be pointed out later on. The data for thirty-four private schools in Cole's study are somewhat similar to those of the Catholic schools except in the case of religion and science, in which subjects there are greater percentages of all constants required in the Catholic schools.

Numbers and percentages of schools requiring different subjects.— The number and percentages of Catholic high schools of both groups requiring work in certain subjects, and corresponding data for thirty-five public high schools in the same area, the North Central Association, are shown in Table 18. Religion and English were required in all Catholic high schools of both groups. The usual distribution of English through the four years was composition and literature in the Freshmen and Sophomore years, American literature in the Junior year, and English literature in the Senior year. One year of foreign history was required in all schools of Group I and in twenty schools of Group II. Only two of the thirty-five schools in Van Dyke's study required foreign history, which, in this case, was modern history. The percentage of

TABLE 17

PERCENTAGES OF CONSTANTS REQUIRED OF ALL PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS, IN THE PUBLIC HIGH SCHOOLS OF FIFTEEN CITIES, AND IN THIRTY-FOUR PRIVATE SCHOOLS

Subject-Groups	21 Catholic High Schools	15 Cities *	34 Private Schools †
Religion	20.7	0.0	6.6
English	26.6	42.5	38.6
Social studies	15.3	16.0	11.7
Mathematics	12.7	7.8	19.4
Foreign language	12.0	0.0	10.6
Natural science	10.0	7.8	2.3
Practical arts	0.0	0.9	0.1
Music	0.0	2.2	1.1
Arts	0.0	1.4	0.2
Physical education	2.7	21.4	2.1
Miscellaneous	0.0	0.0	7.3
Total	100.0	100.0	100.0

* Cole, *op. cit.*, pp. 102-4. Data derived by Cole from George S. Counts, *The Senior High School Curriculum*, p. 22. Supplementary Educational Monographs, No. 29. Chicago: Department of Education, University of Chicago, 1926.

† Adapted from Cole, *op. cit.*, pp. 102-4.

schools requiring American history and civics or related subjects was about the same for the two groups of Catholic schools and for the thirty-five public schools, approximately 90 per cent requiring American history and almost 70 per cent requiring some form of civics. Sociology was required in about a third of the Catholic high schools of both groups.

The Catholic high schools of Group I and Group II usually required mathematics, foreign language, and science as constants, in addition to English, religion, and social studies. Forty-one of the Group I schools required a year of algebra and all of the twenty-one schools demanded it. For geometry, the numbers requiring it were forty and nineteen for each group of schools respectively. In the thirty-five public schools, sixteen required algebra, and twelve geometry. Approximately four out of five Catholic high schools of Group I required foreign language and all except one of those of Group II required it. Two years of Latin was the usual requirement. None of the public schools required units in this field. All Catholic high schools in both groups had one or more years of science as constants, with no one subject uniformly required. Only 23 per cent of the public schools required some form of science. Physical education was a requirement in 72.3 per cent of the schools of

TABLE 18

NUMBERS AND PERCENTAGES OF SCHOOLS REQUIRING CERTAIN SUBJECTS OF ALL PUPILS: FORTY-SEVEN CATHOLIC HIGH SCHOOLS, 1936-1937; TWENTY-ONE CATHOLIC HIGH SCHOOLS, 1935-1936; AND THIRTY-FIVE NORTH CENTRAL ASSOCIATION SCHOOLS (After Van Dyke.)

Required Subjects	47 Schools		21 Schools		35 Public Schools*	
	Number	Percentage	Number	Percentage	Number	Percentage
Religion	47	100.0	21	100.0	....	....
English	47	100.0	21	100.0	35	100.0
Composition	47	100.0	21	100.0	....	....
American literature	28	59.6	15	71.4	....	....
English literature	43	91.5	19	90.5	....	....
Oral English	5	10.6	1	4.8	....	....
English and American literature	3	6.4	....	....	....	....
General history	8	17.0	3	14.3	....	....
Ancient history	6	12.8	2	9.5	....	....
Ancient-medieval history	15	31.9	7	33.3	....	....
Medieval-modern history	6	12.8	4	19.0	....	....
Modern history	12	25.5	4	19.0	2	5.7
American history	41	87.2	19	90.5	30	85.7
Civics	21	44.7	11	52.4	9	25.7
Community civics	1	2.1	....	....	6	17.1
Citizenship	5	10.6	3	14.3	5	14.3
Social studies	2	4.3	1	4.8	4	11.4
Economics	3	6.4	....	....	5	14.3
Vocations	2	4.3	1	4.8	....	....
Sociology	13	27.7	7	33.3	....	....
Problems of democracy	2	4.3	....	....	....	....
General mathematics	1	2.1	....	....	1	2.9
Elementary algebra	41	87.2	21	100.0	16	45.7
Plane geometry	40	85.1	19	90.5	12	34.3
Advanced algebra	7	14.9	1	4.8	....	....
Solid geometry	2	4.3	....	....	....	....
Latin	33	70.2	17	81.0	....	....
Foreign language	1	2.1	1	4.8	....	....
German	1	2.1	1	4.8	....	....
Polish	2	4.3	1	4.8	....	....
Science	14	29.8	8	38.1	....	....
General science	10	21.3	6	28.6	2	5.7
Biology	13	27.7	7	33.3	3	8.6
Chemistry	10	21.3	5	23.8	1	2.9
Physics	11	23.4	3	14.3	1	2.9
Physiology-Health	5	10.6	4	19.0	1	2.9
Business English	1	2.1	1	4.8	....	....
Typewriting	2	4.3	....	....	....	....
Bookkeeping	2	4.3	....	....	....	....
Music	2	4.3	1	4.8	2	5.7
Physical education	34	72.3	16	76.2	21	60.0
Others	....	....	....	....	5	14.3

* *School Review*, XXXIX (November, 1931), 650, (Editorial).

Group I, in 76.2 per cent of those of Group II, and in 60.0 per cent of the thirty-five public schools. In four of the schools of Group I and in one of the schools of Group II the physical education was military training.

Here again it is clear that the requirements in the Catholic high schools were those subjects usually demanded for college entrance. The table does not reveal, however, that approximately two-thirds of the required subjects were taken in the first two years of high schools in both groups of schools. Two years of religion, two units in English, two in mathematics, two in Latin, and two from among general science, ancient or ancient-medieval history, community civics, and biology were the usual subject requirements during the Freshman and Sophomore years.

Elective subjects.—The number of the twenty-one Catholic high schools offering electives in the various subjects and the number of units offered are given in Table 19. Usually the electives are subjects that pupils take in order to specialize in certain fields, to prepare for specific activities, or to further their interests along certain lines. In other words, the electives provide for individual differences.

It is apparent that the electives lie, for the most part, in the fields of the required subjects and in commercial subjects. Social studies, mathematics, foreign languages, science, commercial subjects, and group-music are the electives usually offered, and only the commercial group of subjects provides for a particular kind of work for those not going on to college. As a rule, the electives are available only to Juniors and Seniors.

Numbers and percentages of schools offering subjects and numbers and percentages of pupils enrolled in them.—The numbers and percentages of pupils enrolled in the various subjects for forty-four schools of Group I and for the twenty-one schools of Group II are presented in in Table 20. The data correspond rather closely for both groups of schools.

The percentages representing the enrolments in the different subjects are derived by dividing the number of pupils in all schools taking a subject by the entire enrolment of all the schools in the group. Thus, in the forty-four schools, 32.4 per cent of the entire student body is taking Freshman English. This represents 100 per cent of the Freshmen, and, in addition, some pupils who are repeating the subject. Again, 19.6 per per cent of the entire enrolment is taking American history. As this is

TABLE 19

NUMBER OF TWENTY-ONE SCHOOLS OFFERING ELECTIVES IN VARIOUS SUBJECTS AND THE NUMBER OF UNITS OFFERED

Elective Subjects	21 Schools						
	Number of Units						
	½	1	1½	2	3	4	Number of Schools
English	....	1	....	....	....	....	1
Oral English	....	....	....	....	....	....	2*
Journalism	....	1	....	....	....	....	1
History	....	8	....	2	1	....	11
Civics	5	2	....	....	....	....	7
Economics	13	1	....	....	....	....	14
Sociology	6	1	....	....	....	....	7
Vocations	3	....	....	....	....	....	3
General mathematics	1	....	....	....	....	....	1
Plane geometry	....	2	....	....	....	....	2
Advanced algebra	16	3	....	....	....	....	19
Solid geometry	21	....	....	....	....	....	21
College algebra	1	....	....	....	....	....	1
Trigonometry	14	....	....	....	....	....	14
Greek	....	1	....	3	....	....	4
Latin	....	....	....	15	1	4	20
French	....	....	....	13	1	....	14
German	....	....	....	7	1	....	8
Spanish	....	....	....	5	....	....	5
Polish	....	....	....	2	....	....	2
General science	1	2	....	....	....	....	3
Biology	....	3	....	....	....	....	3
Chemistry	....	14	....	....	....	....	14
Physics	....	15	....	....	....	....	15
Physiography	1	....	....	....	....	....	1
Physiology	2	....	....	....	....	....	2
Typewriting	....	14	1	....	....	....	15
Shorthand	....	7	....	2	....	....	9
Bookkeeping	....	13	....	....	....	....	13
Commercial arithmetic	8	4	....	....	....	....	12
Commercial law	10	....	....	....	....	....	10
Commercial geography	5	....	....	....	....	....	5
Business training	1	....	....	....	....	....	1
Business English	....	3	....	....	....	....	3
Mechanical drawing	....	7	....	1	....	....	8
Shop	....	1	....	....	....	....	1
Music	....	1	....	1	3	....	19†
Other fine arts	....	2	....	....	....	....	2

* Offered but no credit given.
† Offered but no credit given in fourteen schools.

TABLE 20

NUMBERS AND PERCENTAGES OF SCHOOLS OFFERING DIFFERENT SUBJECTS AND NUMBERS AND PERCENTAGES OF PUPILS ENROLLED IN THE SUBJECTS

School Subjects	44 Schools				21 Schools			
	Number of Schools	Percentage	Number of Pupils	Percentage	Number of Schools	Percentage	Number of Pupils	Percentage
Religion I	44	100.0	5,400	32.1	21	100.0	2,444	30.5
Religion II	44	100.0	4,474	26.6	21	100.0	2,080	25.9
Religion III	44	100.0	3,674	21.8	21	100.0	1,754	21.9
Religion IV	32	72.7	2,317	13.8	13	61.9	932	11.6
English I	44	100.0	5,442	32.4	21	100.0	2,474	30.8
English II	44	100.0	4,483	26.7	21	100.0	2,109	26.3
English III	16	36.4	1,601	9.5	6	28.6	485	6.0
American literature	28	63.6	1,999	11.9	15	71.4	1,296	16.1
English literature	42	95.5	2,893	17.2	20	95.2	1,492	18.6
Journalism	4	9.1	81	0.5	1	4.8	21	0.3
Public speaking	10	22.7	1,343	8.0	3	14.3	757	9.4
World history	7	15.9	759	4.5	3	14.3	240	3.0
Ancient history	9	20.5	772	4.6	2	9.5	186	2.3
Ancient-mediaeval history	21	47.7	2,334	13.9	11	52.4	1,059	13.2
Medieval-modern history	7	15.9	568	3.4	4	19.0	431	5.4
Modern history	28	63.6	2,169	12.9	12	57.1	811	10.1
American history	43	97.7	3,293	19.6	21	100.0	1,648	20.5
Civics	31	70.5	2,322	13.8	14	66.7	937	11.7
Community civics	5	11.4	259	1.5	1	4.8	23	0.3
Citizenship	4	9.1	386	2.3	4	19.0	376	4.7
Vocational-civics	2	4.5	58	0.3	1	4.8	43	0.5
Vocations	2	4.5	64	0.4	4	19.0	138	1.7
Economics	20	45.5	860	5.1	14	66.7	486	6.1
Sociology	28	63.6	1,444	8.6	14	66.7	818	10.2
Problems of democracy	2	4.5	80	0.5	....	.....	.....	.....
General mathematics	5	11.4	235	1.4	1	4.8	30	0.4
Elementary algebra	43	97.7	5,310	31.6	21	100.0	2,527	31.5
Plane geometry	44	100.0	4,398	26.1	21	100.0	2,133	26.6
Advanced algebra	42	95.5	1,894	11.3	20	95.2	872	10.9
Solid geometry	41	93.2	1,370	8.1	21	100.0	488	6.1
Trigonometry	27	61.4	692	4.1	14	66.7	397	4.9
College algebra	2	4.5	39	0.2	1	4.8	8	0.1
Arithmetic	2	4.5	47	0.3	....	.....	.....	.....
Latin I	43	97.7	4,783	28.4	21	100.0	2,478	30.8
Latin II	43	97.7	3,989	23.2	21	100.0	1,956	24.4
Latin III	40	90.9	1,157	6.9	19	90.5	558	7.0
Latin IV	32	72.7	709	4.2	18	85.7	363	4.5

TABLE 20—(CONTINUED)

School Subjects	44 Schools				21 Schools			
	Number of Schools	Percentage	Number of Pupils	Percentage	Number of Schools	Percentage	Number of Pupils	Percentage
Greek I	12	27.3	345	2.1	4	19.0	94	1.2
Greek II	9	20.5	271	1.6	3	14.3	97	1.2
French I	25	56.8	787	4.7	14	66.7	415	5.2
French II	25	56.8	548	3.3	13	61.9	315	3.9
French III	1	2.3	5	0.0	1	4.8	11	0.1
German I	17	38.6	774	4.6	9	42.9	420	5.2
German II	16	36.4	640	3.2	9	42.9	365	4.5
German III	3	6.8	58	0.3	1	4.8	18	0.2
German IV	1	2.3	15	0.1	----	------	------	------
Spanish I	12	27.3	304	1.8	5	23.8	183	2.3
Spanish II	12	27.3	232	1.4	4	19.0	86	1.1
Polish I	3	6.8	245	1.5	2	9.5	70	0.9
Polish II	3	6.8	102	0.6	2	9.5	55	0.7
Polish III	1	2.3	40	0.2	1	4.8	41	0.5
Polish IV	1	2.3	41	0.2	1	4.8	39	0.5
General science	22	50.0	1,888	11.2	9	42.9	1,032	12.9
Biology	22	50.0	1,657	9.9	10	47.6	773	9.6
Physiography	3	6.8	78	0.5	1	4.8	17	0.2
Chemistry	37	84.1	2,091	12.4	19	90.5	1,150	14.3
Physics	41	93.2	2,056	12.2	18	85.7	1,013	12.6
Physiology	3	6.8	224	1.3	3	14.3	114	1.4
Health	3	4.5	323	1.9	3	14.3	293	3.7
Typewriting	31	70.5	2,259	14.6	15	71.4	715	8.9
Shorthand	20	45.5	1,288	7.7	9	42.9	390	4.9
Bookkeeping	28	63.6	1,190	7.1	13	61.9	442	5.5
Commercial arithmetic	20	45.5	755	4.5	12	57.1	410	5.1
Commercial law	20	45.5	781	4.6	10	47.6	387	4.8
Commercial geography	7	15.9	278	1.7	5	23.8	199	2.5
Business training	9	20.5	290	1.7	1	4.8	57	0.7
Business English	8	18.2	355	2.1	4	19.0	143	1.8
Salesmanship	1	2.3	37	0.2	----	------	------	------
Mechanical drawing	9	20.5	418	2.5	8	38.1	408	5.1
Woodwork	1	2.3	117	0.7	----	------	------	------
Manual training	1	2.3	11	0.1	1	4.8	15	0.2
Dramatics	1	2.3	------	------	1	4.8	------	------
Art appreciation	1	2.3	20	0.1	----	------	------	------
Commercial art	3	6.8	145	0.9	1	4.8	30	0.4
Music appreciation	1	2.3	60	0.4	----	------	------	------
Chorus	21	47.7	1,557	9.3	15	71.4	1,079	13.4
Orchestra	25	56.8	820	4.9	18	85.7	408	5.1
Band	13	29.5	661	3.9	11	52.4	558	7.0
Harmony	1	2.3	18	0.1	1	4.8	------	------
Physical education	34	77.3	9,741	57.9	16	76.2	4,252	53.0

usually a Senior subject, it may be concluded that nearly all Seniors take that subject. This interpretation must be borne in mind in considering the different percentages.

The heavy enrolments are, naturally, in the required subjects. Thus, practically all Freshmen are taking religion, English, algebra, first-year Latin, and either general science or a social science. Sophomores are enrolled in religion, English, geometry, Latin, and biology or social science. All Juniors are taking religion and English, and nearly all are carrying one of the sciences. Almost the entire number of Seniors are taking American history and English.

The foreign languages comprise approximately a fourth of the entire offering of both groups of schools.[19] Only a small percentage of the student body, however, is enrolled in the elective foreign languages. Almost a fourth of the pupils are taking second-year Latin, for example, but only one pupil in fourteen elects the third year of Latin, and only one in twenty, the fourth year. The condition is about the same in the modern foreign languages from the point of view of the proportion of Juniors and Seniors taking them.

The outstanding fact with regard to the modern foreign languages is the large number of schools of this study which offer German, approximately 40 per cent of both groups enrolling pupils in that subject. German is offered in only 18.3 per cent of all private schools reporting to the Office of Education,[20] and in about 7 per cent of all public schools.[21]

The subjects in mathematics not required are elected by only small groups of pupils. Solid geometry and trigonometry claim only small percentages of pupils. Advanced algebra is a required subject in seven of the schools of Group I, and this accounts for the rather large percentage of pupils carrying it.

As has been mentioned previously, the Catholic high schools for boys in this study do not attempt generally to offer an industrial-arts

19 Table 14, p. 35.

20 Data derived from Carl A. Jessen, *Subject Registrations in Private High Schools and Academies, 1932-33*, p. 8. Washington: United States Office of Education Pamphlet No. 73, 1937.

21 Carl A. Jessen, "Registration in Languages," *School Life*, XXIII (September, 1937), 23.

program. One of the schools that the writer visited introduced a full program in 1936-37 beginning with the Freshman year. Another school with fine facilities for industrial-arts courses offered a year of woodwork, but only fifteen pupils from a student body of more than four hundred elected the course.

In regard to the fine arts, pupils have opportunity to engage in non-credit chorus or group instrumental music in thirty schools in Group I and in nineteen schools of Group II. Perhaps more schools of Group I offer music, but as credit is not usually allowed for it, principals may not have entered music on the second questionnaire.

Reference has already been made to the great deficiency in the graphic and plastic arts.[22] Only three schools offer courses in these subjects. In one school a teacher offered a non-credit course in music appreciation and another one in art appreciation during part of the lunch period, and almost the entire Senior Class followed one or the other of the classes voluntarily. It is an illustration, perhaps, of what might be done in Catholic high schools in appreciation subjects, which are now so neglected in the Catholic high schools for boys.

The percentages of all private schools offering the various subjects and the percentages of pupils enrolled in them correspond rather closely with the data given in Table 20. The outstanding differences are: (1) In all private schools reporting to the Office of Education, a greater percentage of pupils take foreign language[23] than is the case in schools of this study; (2) 66.1 per cent of all private schools offer a course in ancient history in which 18.5 per cent of all pupils are enrolled.[24] In the Catholic high schools of Group I the corresponding percentages are 20.5 and 4.6. In the schools of Group II the percentages are smaller. (3) Drawing is offered by 29.8 per cent of all private high schools, and 9.4 per cent of all pupils are enrolled in it.[25] Only 6.8 per cent of the schools of Group I offer drawing, and 0.9 per cent of the pupils take it.

The outstanding differences between the percentages of public schools offering various subjects and the percentages of pupils enrolled in them and the same types of data for the Catholic schools of Group I

22 P. 35.

23 Data derived from Jessen, *Subject Registrations in Private High Schools and Academies, 1932-33,* pp. 10-12.

24 *Ibid.,* p. 8. (Data derived by the present writer.)

25 *Ibid.,* pp. 8 and 22.

are: (1) More than 50 per cent of all public schools offer world history,[26] and more than 70 per cent give a course in problems of American democracy.[27] In the Catholic high schools the corresponding percentages are 15.9 and 4.5. (2) Seventy-one per cent of all public schools offer general science, and 63 per cent offer biology.[28] In the Catholic high schools 50 per cent offer both courses. (3) The number of public schools offering drawing and other forms of art is also greater[29] than the number of Catholic high schools offering those subjects. In physical education, the percentages of schools offering it and the percentages of pupils taking it are approximately the same for public schools[30] and for the Catholic schools of Group I.

In Table 21 is given in condensed form the same information for both groups of Catholic high schools and also for schools in the North Central Association. The percentages for English in both groups of Catholic high schools are more than one hundred because some pupils are counted twice in cases in which they take the regular English work and a class in oral English or in journalism in addition. In the same fashion, some pupils are counted twice in foreign languages, social studies, mathematics, and commercial subjects.

The great differences between the percentages of pupils of North Central Association schools and those of Catholic high schools carrying the different subjects lie in the fields of religion, foreign language, mathematics, commercial subjects, industrial arts, and fine arts. The percentages in the academic fields are larger in the case of the Catholic high schools than for North Central Association schools and smaller in the non-academic groups.

As the subjects in the first two years in the Catholic high schools of this study are approximately the same and as they are usually required, there is no relation in the first two years between the subjects pupils take and such factors as intelligence, socio-economic status, and

26 Carl A. Jessen, "Registrations in History," *School Life*, XXII (April, 1937), 243-44.

27 Carl A. Jessen, "Registration in Social Studies," *School Life*, XXII (May, 1937), 283-84.

28 Carl A. Jessen, "Registrations in Science," *School Life*, XXII (June, 1937), 314.

29 Carl A. Jessen, "Registration in Fine Arts and Physical Education," *School Life*, XXIII (October, 1937), 55.

30 *Ibid.*

country of birth of fathers. In Grades XI and XII, in which electives are available, there is some relation between these factors and subjects in which pupils are enrolled. This relationship will be presented in Chapter VII.

TABLE 21

NUMBERS AND PERCENTAGES OF PUPILS ENROLLED IN CERTAIN SUBJECT-FIELDS IN TWO GROUPS OF CATHOLIC HIGH SCHOOLS AND IN 2,558 NORTH CENTRAL ASSOCIATION SCHOOLS

Subject-Groups	44 Schools		21 Schools		2,558 Schools*
	Number	Percentage	Number	Percentage	Percentage
Religion	15,865	94.3	7,210	89.8	.....
English	17,842	106.1	8,634	107.6	97.3
Foreign language	14,934	88.8	7,564	94.2	35.1
Ancient languages	11,163	66.4	5,546	69.1	17.2
Modern foreign languages	3,771	22.4	2,018	25.1	17.9
Mathematics	13,985	83.1	6,455	80.4	47.5
Science	8,317	49.4	4,099	51.1	51.8
Social studies	15,368	91.4	7,196	89.7	74.8
Commercial subjects	7,233	43.0	2,743	34.2	66.8
Industrial arts	546	3.2	423	5.3	24.1
Fine arts	3,281	19.5	2,075	25.9	45.5
Physical education	9,741	57.9	4,252	53.0	58.5

* Hotz, *op. cit.*, pp. 416-18.

Percentage of recitation time devoted to subject-groups.—The data presented in the two preceding tables are reflected to some extent in the percentage of recitation time devoted to the different subject-groups, given in Table 22. The percentage in each subject-field was computed by multiplying the number of pupils in each subject by the number of periods a week a subject was taught and by the number of semesters a subject was taught, and dividing the number of pupil-hours per year in each subject-group by the total number of pupil-hours. The percentages show again that the academic subjects are the ones stressed in the Catholic high schools of this study. The comparisons of percentages of time in the Catholic and in public high schools would be merely repetitions of those made in the two preceding tables, and are, therefore, omitted.

Number of units required for graduation.—Pupils in Catholic high schools usually carry the equivalent of five subjects—religion and four other subjects. Religion is required of all Catholic pupils. Non-Cath-

TABLE 22

PERCENTAGE OF RECITATION TIME DEVOTED TO EACH MAJOR SUBJECT-GROUP IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS, 1935-1936, AND IN FOURTEEN CITIES, 1930-1931

Subject-Groups	21 Schools	14 Cities*
	Percentage of Recitation Time	Percentage of Recitation Time
Religion	12.9	.....
English	18.0	17.7
Social studies	12.6	12.7
Mathematics	12.4	9.5
Foreign language	16.9	8.3
Natural sciences	11.7	10.7
Commercial subjects	5.7	13.9
Fine arts	2.8	5.8
Industrial arts	1.3	8.3
Physical education	5.7	9.2
Home economics	.....	3.8
Miscellaneous	.....	.1
Total	100.0	100.0

* Loomis, Lide, and Johnson, *op. cit.*, p. 182.

olic pupils employ the religion period in study. The number of units required, as calculated from the number of recitation periods a week and the number of semesters the class is taught, is presented in Table 23. Twenty of the forty-eight schools of Group I hold classes in religion five days a week, and the others teach the subject two, three, or four periods each week. In the schools of Group II the data are somewhat the same.

TABLE 23

NUMBER OF UNITS REQUIRED FOR GRADUATION

Number of Units	48 Schools	21 Schools
	Number	Number
Religion:		
2 units	16	6
3 units	11	7
3.5 units	1	1
4 units	20	7
Other subjects:		
15 units	7	2
16 units	41	19

The units in religion are what might be termed "book credits." They are not counted in the fifteen or sixteen units required for graduation, although the courses are not merely lecture courses, outside preparation being required as in other subjects. The general practice in Catholic high schools of both groups in regard to the number of units required for graduation is to require sixteen units, excluding religion. Forty-one of the schools of Group I and nineteen of those of Group II require this number.

SUMMARY OF THE CHAPTER

Organization of the program of studies.—The program of studies of the Catholic high school for boys is organized according to type either as constants-with-variables or combination curriculums. Of forty-seven schools sending in programs of studies, slightly more than half had the combination-type curriculum, more than two-fifths employed the constants-with-variables type, and only two schools had the pure multiple-curriculum type.

The curriculums.—The average number of curriculums in schools employing the pure multiple-curriculum type or the combination type is approximately three, and almost two out of three curriculums are college preparatory in nature. Usually the general and the commercial curriculums include or require subjects demanded for college entrance. About two-thirds of the Juniors and Seniors in the Catholic high schools of both groups pursue purely college-preparatory curriculums.

The offerings.—Approximately three-fourths of the subject-offerings in the Catholic high schools for boys are in five academic subject-fields: English, social studies, foreign languages, mathematics, and science. The greatest number of units is in the foreign languages, almost a fourth of the entire number of units being in ancient and modern languages. Industrial arts and graphic arts are generally neglected, except for mechanical drawing. Religion and commercial subjects each comprise a tenth of the entire offering. The average number of units in the twenty-one schools of Group II is 29.9.

The required subjects—The subjects required of all pupils are, as a rule, those demanded by colleges for entrance. In addition to religion, in which 3.1 units are required, the usual requirements are four units in English, 2.3 in social studies, one in algebra, one in geometry, two in Latin, and 1.5 in natural science. The average number of units re-

quired, excluding religion and physical education, is 11.5. The usual number of units required for graduation, excluding the units in religion and physical education, is sixteen.

Ordinarily the first two years of high school work are required in the Catholic schools of this study. The subjects are, as a rule, two years of religion, two units each in English, mathematics, and foreign language, and one or two in the social or in the natural sciences.

Elective subjects.—The elective subjects are, for the most part, in the academic fields and in commercial subjects.

Enrolment in subjects—The heaviest enrolments and the greatest percentages of recitation time are in the required subjects.

Physical education is offered by more than three-fourths of the schools and taken by more than half the pupils, although few schools allow credit toward graduation for work in that subject.

Some of the questions raised in the Introduction concerning the nature of the offerings can be answered from the data presented in this chapter. The offerings, both from the point of view of subjects and curriculum, are college preparatory, and the subjects offered in the first two years are required and almost purely academic. The questions that are raised in this chapter and which must be answered by data presented in succeeding chapters, are: What is the nature of the content of the subjects? Do all pupils go to college? Do considerable numbers discontinue in the first two years and, therefore, have little or no vocational use for college preparatory subjects? Do considerable groups of pupils have vocational plans which the offerings do not provide for? Have all pupils sufficient intelligence to carry some of the college preparatory subjects successfully? Are they all interested in purely college preparatory work? Were former pupils prepared for the activities they engaged in after they left high school?

CHAPTER IV

THE TEXTBOOKS IN THE CATHOLIC HIGH SCHOOLS

THE TEXTBOOK IN AMERICAN SCHOOLS

The textbook still dominates to a great extent American classroom practice. Edmonson remarks that in thousands of classrooms the textbook determines both content and method.[1] Bagley says that the study of early and recent surveys leads to the conclusion that the typical American classroom, elementary and secondary, carries on the formal recitation on assigned textbook materials.[2] Blair charges that "the high school is still afflicted with a malignant sort of textbook-mindedness: That is, the idea that for every subject there should be one book—and not much else," and that this applies largely to all subject fields, at least in the academic subjects.[3]

The fact that a textbook is followed rather closely does not condemn method or prove that outside materials are not brought into the classroom. The weight of evidence seems to favor the use of the textbook, although writers do not advocate that only a single textbook be used. Beauchamp calls attention to the fact, however, that sometimes the use of a single book is economical in time-saving as pupils do not have to wander around the room looking for books when references to several are given, or thumb pages looking for references that merely repeat what is in the single textbook.[4] Bagley says: "Whatever the evils of the textbook system may be, it is fairly clear that it is about the only force in American education that reflects a systematic and orderly pro-

1 J. B. Edmonson, "Introduction," *The Textbook in American Education*, p. 1. Thirtieth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Ill.: Public School Publishing Co., 1931.

2 William C. Bagley, "The Textbooks and Methods of Teaching," *The Textbook in American Education*, pp. 10-11. Thirtieth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Ill.: Public School Publishing Co., 1931.

3 John L. Blair, "Social Studies and the Textbook Complex," *Educational Administration and Supervision*, XIX (November, 1933), 613-14.

4 Wilbur S. Beauchamp, *Instruction in Science*, p. 47. National Survey of Secondary Education Monograph No. 22. United States office of Education Bulletin No. 17, 1932.

cedure."[5] Bolton argues that the textbook is an "indispensable guide" but must be supplemented by the library to make concrete many condensed and abstract accounts in the social sciences.[6] Buckingham claims that the cultural heritage is accumulating so rapidly that teachers are farther behind now than they were a hundred years ago when a small book contained what they had to get across, and he goes on to cite advantages of textbook use.[7] Douglass says that teachers are too dependent on textbooks, which relieve them of the necessity of planning instruction and method.[8] He says further, however, that this need not be so. "Textbooks if rightly and intelligently used, permit of a tremendous saving of time to both teacher and pupil."[9] Maxwell likewise cites many advantages of the use of the textbook.[10]

Bode, in condemning too much reliance on the textbook, remarks that textbooks are now well drawn up, contain no grave errors in materials, and are objective.[11] He also says, however, that the textbook is a tool and not a master or end in itself.[12]

The standard textbook, according to Bolton, must have sound scholarship, be organized in an interesting way, and embody soundest methods of teaching.[13] With increase in size and rich content, due to the inclusion of more factual material leading to generalizations, and be-

5 William C. Bagley, "The Textbook in American Education," *Educational Administration and Supervision,* XVII (April, 1931), 244.

6 Frederick E. Bolton, "The Revival of the Textbook," *American School Board Journal,* LXXXVII (December, 1933), 21.

7 B. R. Buckingham, "The Relation of the Curriculum to the Textbook," *Reconstructing Education Through Research,* p. 147. Official Report of the American Educational Research Association, 1936. Washington: American Educational Research Association of the National Educational Association, May, 1936.

8 Harl R. Douglass, *Modern Methods in High School Teaching,* p. 12. Boston: Houghton Mifflin Co., 1926.

9 *Ibid.,* p. 18.

10 C. R. Maxwell, *The Selection of Textbooks,* pp. 4-13. Boston: Houghton Mifflin Co., 1921.

11 Boyd H. Bode, "On the Use of Textbooks," *Educational Research Bulletin,* VII (January 11, 1928), p. 11 (Editorial).

12 *Ibid.*

13 Bolton, *op. cit.,* p. 21.

cause of the broader range of scholarship today,[14] textbooks at the present time do not limit the ingenuity of the teacher in presenting new materials or in using the various teaching devices.[15]

This review of conclusions makes it evident that the textbook is predominant in controlling to a large extent the subject matter taught in American secondary schools. And an examination of the subject matter to which high school pupils are exposed reveals the real character of the educational opportunity provided for pupils in the subjects that form the curriculum of the schools.[16]

THE EXTENT OF USE OF TEXTBOOKS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS

In the twenty-one Catholic high schools for boys the use of textbooks, for the most part standard ones used in secondary schools, is prevalent. While visiting these schools the writer secured a list of the textbooks in use and submitted checklists to teachers of English, science, mathematics, social studies, and the foreign languages on their aims in teaching, use of textbooks, materials, etc. These lists were checked by teachers in seventeen of the twenty-one schools.

There is a basic textbook used in each subject, and the extent to which the teacher depends on it varies somewhat with the subject. In mathematics and the foreign languages the basic textbook is used almost exclusively, although in the modern foreign languages a reader is used in conjunction with the more formal grammars. In English, besides the literature and composition textbooks, workbooks on correct grammatical use are often employed in the first and second years. Written composition is based on suggested topics in the textbook, on literature, or on timely and appropriate topics suggested by the teacher or chosen by the pupil. In addition, each pupil is responsible for outside reading, usually a book a month. In the social subjects twelve teachers indicated that they follow the textbook closely and forty-seven checked

14 Charles H. Judd, "The Significance for Textbook-making of the Newer Concepts in Education," *Elementary School Journal*, XXXVI (April, 1936), 575.

15 Bolton, *op. cit.*, p. 21.

16 John Elbert Stout, *The Development of High-School Curricula in the North Central States from 1860 to 1918*, p. 117. Supplementary Educational Monographs, No. 15. Chicago: Department of Education, University of Chicago, 1921.

that they use the textbook as a guide, by which they meant they do not follow the textbook exactly but bring in materials for illustration, application, and discussion. Only ten teachers mentioned that they use current literature and other reference materials. In science eight teachers did not answer the question regarding their use of the textbook, eight intimated that they follow the textbook closely, ten mentioned that they use very little material outside that contained in the regular laboratory manual and the textbook, and eighteen checked that they bring in outside materials to arouse interest or to present topics not treated in the textbook. Only eight mentioned that they make use of reference materials and projects.

It may be concluded, therefore, that the content of the different subjects is largely that contained in the texbooks in use in the schools.

THE PURPOSE OF THE CHAPTER

The purpose of the chapter is to present an analysis of the aims and content of textbooks in English composition and literature used in the schools of this study. This analysis will acquaint readers with the general method employed in examining textbooks used in the other subjects —religion, social studies, foreign language, mathematics, science, and commercial subjects. Summaries of the findings concerning these subjects are given in the present chapter, but as the textbooks are usually well-known ones, written by research workers in their respective fields, university professors, or experienced secondary school teachers, and sometimes by several of these in collaboration, titles of textbooks and authors will not be given. Moreover, as the modern textbook generally contains a wealth of teacher aids, such as questions, topics for discussions, suggested projects, illustrations, bibliographies, etc., mention of these will not be included in the summary. Readers interested in the extended examination of textbooks may refer to the original manuscript in the University of Chicago Libraries.[17]

The general method of examination consists in (1) presenting the frequency of use of the textbooks in the various subjects; (2) checking the aims of the authors, as expressed in the prefaces of the most frequently used textbooks, against the widely accepted aims of national

17 Brother William Mang, C.S.C., "The Curriculum of the Catholic High School for Boys," pp. 59-137. Doctor's dissertation, Department of Education, University of Chicago, 1940.

committees and surveys; and (3) examining the content of the books in most common use.

The list of topics treated in the textbooks is considered a rough though adequate measure of probable content. Ordinarily, no attempt is made to measure the amount of space devoted to the various topics. Those given in the tables are the ones the writer used in analyzing content and are not the ones employed in the textbooks.

The terms "aims" and "objectives" are used synonymously, as they are used interchangeably in some of the works cited.

In the tables in which letters are used to represent textbooks, the order of the books is the same as in the Bibliography under "Textbooks in English."

TEXTBOOKS IN ENGLISH

The goal of instruction in English is to train generations of children to "read intelligently, pleasurably, and with good taste and . . . to express their own ideas and sentiments in reasonably refined English."[18] "Facility of expression," "power of interpretation," and "appreciation" are the terms used in a National Education Association bulletin to express the same idea.[19]

In the effort to bring about these aims, modern textbooks in composition emphasize the relation of classroom experiences to life experiences and interests, which is the accepted practice in secondary schools and the recommendation of educational leaders.[20] In written composition the subjects of themes grow out of actual experiences either in class or in some activity or out-of-school experience. In oral composition the most frequent exercises deal with giving opinions, discussing some topic of common interest, and telling anecdotes.

In literature the trends are away from intensive reading of a few

18 R. L. Lyman, *The Enrichment of the English Curriculum*, p. 10. Supplementary Educational Monographs, No. 39. Chicago: Department of Education, University of Chicago, 1932.

19 "Vitalizing the High School Curriculum," *Research Bulletin of the National Education Association*, Vol. VII, No. 4, p. 202.

20 Dora V. Smith, *Instruction in English*, p. 26. National Survey of Secondary Education Monograph No. 20. United States Office of Education Bulletin No. 17, 1932.

recognized classics and toward more extensive reading and free reading, under guidance, of contemporary literature.[21]

In speaking to teachers of English, while visiting Catholic high schools, the writer gained the impression that the teachers agree with Morrison that "capacity in clear, accurate, and correct expression is more than any other attainment which a pupil acquires, a reflection of his total education."[22]

All the schools require four years of English, although one demands only three for graduation. Ordinarily, composition and literature are taught in alternating units or distributed by days within the week. In literature, anthologies are used almost exclusively, only three schools following the older practice of the intensive reading of four or five classics during the year or the semester. In September, 1937, two of these three schools, to the writers' knowledge, introduced anthologies in all four years.

Textbooks and grade placement.—The titles of composition textbooks and the numbers of schools using them in the different high-school grades are presented in Table 24. There is some uniformity in the textbooks employed, those of Tanner, Tressler, and Canby, Opdycke, and Gillum being the ones generally required, but there is no uniformity as to the years in which they are placed. Some schools have a different English textbook for each year and others use the same text for two years.

In most schools composition is emphasized in the first and second years and literature in the third and fourth, although practice in composition is carried on throughout the four years and time is devoted to literature also in each of the four years.

Aims of composition textbooks.—The aims of English composition textbooks are the commonly accepted ones of educational leaders. Thus: "*High School English* has been planned to provide for high school pupils both a stimulus and a guide for interesting, correct, and

21 "Subjectmatter Round Tables in High-School Instruction and New Curriculum Materials," Holland D. Roberts, "In English," *Proceedings of the National Education Association,* LXXIV, 350. Washington, D. C.: National Education Association, 1936.

22 Henry C. Morrison, *The Practice of Teaching in the Secondary School,* pp. 501-02. Chicago: University of Chicago Press, 1926.

TABLE 24

COMPOSITION TEXTBOOKS IN USE IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS AND THE FREQUENCY OF USE AND GRADE PLACEMENT

Textbooks in English Composition	Number of Schools and Grades							Total Number of Schools
	IX	IX–X	X	X–XI	XI	XI–XII	XII	
Tanner: *Correct English,* Introductory Course	1	3	--	--	--	--	--	4
Tanner: First Course	5	1	--	--	2	--	--	8
Tanner: Second Course	--	--	--	4	1	3	2	10
Tanner: *Composition and Rhetoric*	--	--	--	2	--	--	--	2
Tressler: *English in Action,* Book I	3	1	--	--	--	--	--	4
Tressler: Book II	--	--	3	--	--	1	--	4
Tressler: Book III	--	--	--	--	2	--	--	2
Tressler: Book IV	--	--	--	--	--	--	2	2
Canby, Opdycke, Gillum: *High School English,* Book I	4	--	--	--	--	--	--	4
Canby *et al.:* Book II	--	--	4	--	--	--	--	4
Canby *et al.:* Book III	--	--	--	--	1	--	--	1
Baker-Goddard: *English Fundamentals*	2	--	--	--	--	--	--	2
Greever-Jones: *Century Handbook of Writing*	--	--	--	--	2	--	--	2
Coppens: *Introduction to Rhetoric*	--	--	--	--	--	1	--	1
Donnelly: *Model English,* Book I	--	--	1	--	--	--	--	1
Donnelly: *Book II*	--	--	--	--	--	1	--	1
Genung and Hanson: *Composition and Rhetoric*	--	--	1	--	--	--	--	1
Lewis and Hosic: *New Practical English,* First Course	--	--	1	--	--	--	--	1
Lewis and Hosic: Second Course	--	--	--	--	--	--	1	1
Ward: *Sentence and Theme*	--	1	--	--	--	--	--	1
Ward: *Writing Craft*	--	--	--	--	1	--	--	1

effective speaking and writing;"[23] *Correct English,* Introductory Course, attempts "to arouse the pupil's interest in improving his speech and writing so that he will work to gain greater skill in the use of good English to meet his present needs;"[24] "The purpose of *English in Ac-*

23 From Henry Seidel Canby, John Baker Opdycke, and Margaret Gillum, *High School English,* Book One, p. v. New York, 1934. By permission of The Macmillan Company, publishers.

24 William M. Tanner, *Correct English,* Introductory Course p. v. Boston: Ginn and Co., 1933.

tion is to stimulate, entice, and help pupils to live more fully and helpfully by developing skill in speaking, writing, listening, and reading."[25]

General aims of composition.—The general aims of composition that Smith found in one hundred and twenty courses of study arranged in the order of frequency of mention[26] are presented in Table 25. The check mark indicates that authors of the most frequently used textbooks recognized similar aims in their prefaces. All the authors emphasize the following ones: (1) "To promote skill in organizing the materials of thought, experience, and reading;" (2) "to give pupils mastery of the fundamentals of grammar and mechanical accuracy;" (3) "to promote among pupils ability to express their thoughts clearly and fluently;" (4) "to motivate the pupil to a sense of the value of adequate expression."

TABLE 25

AIMS EXPRESSED IN THE PREFACES OF THE MOST FREQUENTLY USED TEXTBOOKS IN ENGLISH COMPOSITION IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS

General Aims of Composition	Composition Textbooks							
	A	B	C	D	E	F	G	H
	2*	4	4	4	8	10	4	4
Skill in organization of thought	×	×	×	×	×	×	×	×
Mastery of fundamentals of grammar	×	×	×	×	×	×	×	×
Clear expression of thought	×	×	×	×	×	×	×	×
Increasing the vocabulary	×	×	..	..	×	..	..	..
Appreciation of value of adequate expression	×	×	×	×	×	×	×	×
Effective style	..	..	..	..	..	×	×	×
Skill in selection of subject matter	..	×	×	..	..	×	..	..
Clear, orderly thinking	×	×	×	×	..	×	×	×
Skill in forms of discourse	×	..	×	..	..	×	..	..
Fitting for activities of everyday life	×	..	×	×	×	×	×	×
Mastery of the sentence	×	×	×	×	×	..	×	..
Skill in use of rhetorical principles	..	..	×	..	..	..	..	..
Skill in paragraph construction	..	..	×	..	..	..	..	..
Increased interest in social and civic affairs	..	..	..	..	..	..	..	..
Courtesy in exchange of ideas	×	..	..	..	..	..	..	..
Careful workmanship	..	×	×	×	..	×	×	×
Honest self-criticism	..	×	×	×	..	×	×	×

* Number of schools in which textbook is used.

25 J. C. Tressler, *English in Action*, Book I, p. iii. New York: D. C. Heath and Co., 1935 (revised).

26 Smith, *op. cit.*, p. 18.

TABLE 26

DEGREES OF EMPHASIS PLACED ON THE AIMS OF WRITTEN COMPOSITION IN THE TEXTBOOKS MOST FREQUENTLY USED IN ENGLISH COMPOSITION IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS

Aims of Written Composition	Composition Textbooks							
	A	B	C	D	E	F	G	H
	2*	4	4	4	8	10	4	4
Correctness and mechanical form	1†	1	1	1	1	1	1	1
Paragraph writing	1	2	1	1	2	1	1	1
Coherent sentences	1	1	1	1	1	1	1	1
Letter writing	1	1	1	1	1	1	1	1
Theme writing	1	2	1	1	1	1	1	1
Punctuation and capitalization	1	1	1	1	1	1	1	1
Effective expression	..	1	1	..	1	1	1	1
Creative writing	..	1	1	..	..	1	1	1
Outlining	1	1	1	1	1	1	1	1
Rhetorical principles	1	1	1	..	..	1	1	1
Organization	1	2	1	..	..	1	..	1
Gathering and evaluating materials	..	2	2	2	2	1	2	1
Choice of words	1	2	1	1	1	1	1	1
Forms of discourse	2	2	1	2	..	1	2	1
Clear and independent thinking	1	2	2	2	1	1	1	1
Correlation of grammar and composition	..	1	1	1	..	1	..	..
Appreciation of value of composition	..	1	1	1	..	1	1	1
Observation and interpretation of life	1	2	..	1	1	..	1	..

* Number of schools in which textbook is used.

† The figure "1" indicates that the aim receives much emphasis, and "2" means the aim receives less emphasis.

Aims of written composition.—The fact that an author of a composition textbook does not mention a particular aim does not necessarily indicate that he ignores it. He may state very general aims in the preface, but the contents of the textbook might show that he recognized specific objectives by devoting exercises to achieving them. The specific aims that Smith found in analyzing courses of study[27] are presented in Table 26. The present writer examined the textbooks most frequently employed in the twenty-one high schools visited to see if the authors called attention to specific aims and provided materials to aid in achieving them. Few of the authors mention as aims, for example, ability to write effective paragraphs or to have nice discrimination in the choice of words, but each author provides for them in the body of his textbook.

27 *Ibid.* p. 21.

The writer attempted to evaluate the emphasis that each author gave to specific aims of composition. The basis for the evaluation was the amount of space and the number of exercises which the author devoted to each topic. The figure "1" indicates that the topic received much emphasis, and the figure "2" means that the topic was not stressed as much as other topics. "Correctness and mechanical form," "coherent sentences," "letter writing," "punctuation and capitalization," and "outlining" are the specific aims that all authors gave much space and attention to.

Aims of oral composition.—In the prefaces of textbooks the authors include aims in oral composition in such general terms as "skill in the organization of thought," "clear expression of thought," and "appreciation of the value of adequate expression." In the body of their books they provide a profusion of exercises that aid in realizing the specific aims of oral composition. In Table 27, in which are presented the

TABLE 27

THE AIMS OF ORAL COMPOSITION PROVIDED FOR IN COMPOSITION TEXTBOOKS USED IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS

Aims of Oral Composition	Composition Textbooks							
	A	B	C	D	E	F	G	H
	2*	4	4	4	8	10	4	4
Ability to meet life needs in speech	×	×	×	×	×	×	×	×
Effective delivery	×	×	×	×	×	×	×	×
Correct usage	×	×	×	×	×	×	×	×
Power in organization	..	×	×	×	..	×	..	×
Effective speaking to audience	×	×	×	×	×	×	×	×
Effective presentation of thought	×	×	×	×	×	×	..	×
Poise in speaking	×	×	×	×	×	×	×	×
Enunciation and pronunciation	×	×	×	×	×	×	×	×
Selection of topics and materials	×	×	×	×	×	×	×	×
Voice control and tone quality	×	×	×	×	×	×	×	×
Oral interpretation of literature	..	..	..	..	..	..	..	..
Effective sentences	×	×	×	×	×	×	×	×
Vigorous expression	..	..	×	×	×	×	×	×
Parliamentary form	..	×	×	..	..	×	..	×
Development of character and personality	..	..	..	..	..	..	..	×
Cooperative presentation of plays	..	..	..	..	..	..	..	..
Ability in debate	×	×	..	..	..	..	..	×
Broadening of interests	..	..	×	..	..	..	..	..
Outlining	×	×	×	×	×	×	×	×
Clear, orderly thinking	×	×	×	×	×	×	×	×

* Number of schools in which textbook is used.

aims of oral composition that Smith found in courses of study,[28] is shown whether or not an author provides exercises to aid in the attainment of the aim. Only two of the aims are neglected. They are "oral interpretation of literature," and "cooperative presentation of plays." One of the aims, "broadening of interests," takes in so much territory that it might be said that any content in any subject would provide for it.

Content of textbooks in English composition.—The content of composition textbooks is given more specifically in Table 28, and an attempt is made to evaluate the degree of emphasis placed on a topic by the amount of page space given to it. The figure "1" indicates that the topic is emphasized, and "2" means that it receives less emphasis.

In Grade IX English, stress is given to the sentence, grammatical and rhetorical, to word study, parts of speech, letter writing, speaking and writing about common experiences, and to outlining. In Grade X composition, the topics of the previous year are amplified and gone into more fully, with some stress on paragraph writing, forms of discourse, and creative writing.

While there is a great variety of exercises in textbooks, only one book had topics on discrimination in reading newspapers, listening to radio programs, and choosing movies and shows. The exercises given in these topics are, for the most part, reports, oral and written, about programs and dramatic productions, and practice in writing new stories. A few teachers, however, mentioned that they provided special projects and exercises in discrimination in reading newspapers, in listening to the radio, and in choosing shows.

In addition to the regular contents, the textbooks in English composition have provisions for individual differences, grammar reviews, diagnostic tests and other test exercises for self-diagnosis, and interesting pictorial illustrations.

Summary.—The textbooks in composition used in the Catholic high schools of this study are those of well-known authors in the field. The aims most frequently mentioned in the prefaces are those usually found in high-school courses of study. The books stress the use of correct English in the ordinary experiences pupils have in writing and speaking.

Textbooks in literature.—In literature, the use of anthologies, a

28 *Ibid.*, p. 30.

TABLE 28

TOPICS IN COMPOSITION TEXTBOOKS MOST FREQUENTLY USED IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS AND THE EMPHASIS THAT IS PLACED ON THE TOPICS ACCORDING TO THE AMOUNT OF SPACE DEVOTED TO THEM

Contents	Composition Textbooks							
	First Course					Second Course		
	A	B	D	E	G	C	F	H
	2*	4	4	8	4	4	10	4
Written composition:								
Description	2†	2	2	2	2	2	2	2
Character sketches	2	2	2	2	2	2	2	2
Building vocabulary	1	2	2	1	2	2	2	2
Study and choice of words	1	2	2	1	2	2	2	2
Narration	2	2	2	2	2	2	2	1
Anecdotes and stories	2	2	2	2	2	2	2	2
Reports on moving pictures	..	2	2	..	2	2	..	2
Writing news stories	2	2	2	2	2	2	2	1
Reports on radio programs	2	2	..	..	2	2	..	2
Short story	..	2	2	2	2	2	1	1
Exposition	2	2	2	2	2	2	2	2
Book reviews and reports	..	2	2	..	2	2	2	2
Explanation, giving directions	2	2	2	2	2	2	2	2
Familiar essays	..	..	..	..	..	2	2	2
Note-taking	..	..	..	..	2	2	2	2
Outlining	1	1	1	1	1	1	1	1
Précis	2	2	2	2	2	2	1	1
Writing examinations	..	..	2	2	..	..	2	2
Other written discourse:								
Social letters and notes	1	1	1	1	1	1	1	1
Business letters	2	2	2	2	2	2	2	2
Telegrams	..	..	..	..	..	2	2	2
Original compositions	2	2	2	2	2	2	1	2
One-act plays	2	..	2	..	..	..	1	2
Preparing manuscripts	..	..	2	2	2	..	2	2
Translating	..	..	..	..	..	..	2	..
The paragraph	2	2	2	2	2	1	1	1
Unity, coherence, emphasis	..	2	2	..	2	2	2	2
The sentence	1	1	1	1	1	2	2	2
Grammatical and rhetorical	1	2	2	2	1	2	2	2
Parts of speech	2	2	1	1	1	2	..	2
Punctuation and capitalization	1	1	1	1	1	1	1	1
Spelling and word-composition	2	2	2	2	2	2	2	2

* Number of schools in which textbook is used.

† The figure "1" indicates a topic is emphasized; "2" indicates less emphasis.

TABLE 28—(CONTINUED)

Contents	Composition Textbooks							
	First Course					Second Course		
	A	B	D	E	G	C	F	H
	2	4	4	8	4	4	10	4
Functional grammar	2	2	2	2	1	2	2	2
Poetry and versification	..	2	..	..	2	2	2	1
Figures of speech	2	2	..	..	2	2	2	2
Examples of poems	2	2	..	..	2	2	..	2
Oral composition:								
Enunciation and pronunciation	2	2	2	2	2	2	2	2
Conversation	2	2	2	2	2	2	2	2
Telephone conversation	..	2	2	2	..	2	2	2
Telling stories and anecdotes	2	2	2	2	2	2	2	2
Telling personal experiences	2	2	2	2	2	2	2	2
Making announcements	2	2	2	2	2	2	..	2
Clear explanations, opinions, and definitions	2	2	2	2	2	2	2	1
Giving directions	..	2	2	2	2	2	2	2
Giving reports	..	2	2	2	2	2	2	2
Reciting	..	2	2	2	2	2	2	2
Interviewing	2	..	..	2	2	2	..	2
Discussions	2	2	2	2	2	..	2	2
Public speaking	..	..	..	..	2	..	..	2
Debating	2	..	..	..	2	2	1	1
Parliamentary procedure	..	2	..	..	2	2	1	1
Other topics:								
Use of the library	..	2	2	..	1	2	2	2
Card catalog	..	2	..	..	2	2	2	2
Dictionary and reference books	2	2	2	2	2	2	2	2
How to use books	..	2	..	..	2	2	2	2
Story of language	2	2	2	..	..	2	..	..
Improving ability	..	..	..	..	..	2	..	..

compromise between extensive and intensive reading, is the predominant practice in the Catholic high schools of this study. The Classics are not ignored, however, as all the anthologies used in the four high-school grades contain from two to five complete works of authors demanded for college entrance requirements. *The Lady of the Lake* is given complete in the two books used most frequently in the Freshman year. Other complete works included in Grade IX textbooks are *Treasure Island, The Rime of the Ancient Mariner, The Vision of Sir Launfal,* and *Julius Caesar.* In the Second-Year books, *Silas Marner, Sohrab and Rustum,* and *Idylls of the King* are offered. In addition, several

longer works, either complete or abridged, are included under narrative poetry. Contemporary literature is stressed, especially in the textbooks of Grades IX and X.

The list of textbooks in literature in use in the twenty-one Catholic high schools is given in Table 29. The *Literature and Life* series is required in twelve schools in the Freshman and Sophomore years, but in the Junior and Senior years there is not so much agreement. Histories of literature are used in four schools in Grades XI and XII, and the third and fourth books of the different series of anthologies usually contain histories of American and English literature, respectively.

TABLE 29

LITERATURE TEXTBOOKS IN USE IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS AND THE FREQUENCY OF USE AND GRADE PLACEMENT

Textbooks in Literature	Frequency and Grade Placement				Total Number of Schools
	IX	X	XI	XII	
Greenlaw *et al.*: *Literature and Life*, (revised), Book I	12	....	....	....	12
Greenlaw *et al.*: *Literature and Life*, (special edition), Book II	....	12	....	....	12
Greenlaw *et al.*: *Literature and Life*, (special edition), Book III	....	....	8	....	8
Miles *et al.*: *Literature and Life*, (revised), Book IV	....	....	....	7	7
Cross *et al.*: *Good Reading for High Schools* I	1	....	....	....	1
Cross *et al.*: *Good Reading for High Schools* II	....	1	....	....	1
Cross *et al.*: *Good Reading for High Schools* III, American Writers	....	....	5	....	5
Cross *et al.*: *Good Reading for High Schools* IV, English Writers	....	....	....	5	5
McGraw (ed.): *Prose and Poetry for Enjoyment*	2	....	....	....	2
McGraw (ed.): *Prose and Poetry for Appreciation*	....	2	....	....	2
McGraw (ed.): *Prose and Poetry of America*	....	....	1	....	1
McGraw (ed.): *Prose and Poetry of England*	....	....	....	2	2
Ross *et al.*: *Adventures in Literature*	1	....	....	....	1
Schweikert *et al.*: *Adventures in Prose and Poetry*	....	1	....	....	1
Chamberlain: *Beacon Lights of Literature*, Book I	1	....	....	....	1
Chamberlain: *Beacon Lights of Literature*, Book II	....	1	....	....	1
Chamberlain: *Beacon Lights of Literature*, Book III	....	....	1	....	1
Newcomer *et al.*: *Twelve Centuries of English Prose and Poetry* (revised)	....	....	....	2	2
Rich: *Study of Types of Literature*	....	....	3	2	5
Brother Leo: *History of English Literature*	....	....	1	2	3
Bennett: *English Literature*	....	....	....	1	1
Individual classics	3	3	3	3	3

TABLE 30

AIMS EXPRESSED IN THE PREFACES OF THE MOST FREQUENTLY USED LITERATURE BOOKS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS

Aims in Literature	Literature Books											
	IX		X		XI			XII			XI-XII	
	A	B	C	D	E	F	G	H	I	J	K	L
	12*	2	12	2	5	8	2	5	7	2	5	3
Vicarious experience	×	×	×	×	×	×	×	×	×	×	×	×
Standards for future reading	×	×	×	×	×	×	×	--	×	×	--	×
Knowledge of literary types	×	×	×	×	×	×	×	×	×	×	×	--
Character and ideals	×	--	--	--	--	×	--	--	×	--	--	×
Enjoyment	×	×	×	×	×	×	--	×	×	--	×	×
Cultivation of aesthetic nature	--	--	×	--	--	--	--	--	--	--	--	×
Good citizenship	×	--	--	--	×	×	×	--	--	--	--	--
Knowledge and appreciation of masterpieces	×	--	--	--	--	--	--	×	×	--	--	--
Knowledge of American literature	--	--	--	--	--	×	×	--	--	--	--	--
Chronological revelation of spiritual heritage	×	×	--	×	--	--	×	×	--	×	--	×
Standards for newspaper and magazine reading	--	--	×	--	--	--	--	--	--	--	×	--
Ability to respond to stimulus of literature	×	×	×	×	--	--	--	--	--	--	×	×
Creative, independent thinking	×	--	×	--	--	×	--	--	×	--	×	--
Interest in varied reading	--	×	×	×	--	×	--	--	--	--	×	×
Current literature	×	×	×	×	×	×	×	--	×	×	×	--
Oral interpretation of literature	--	--	--	--	--	--	--	--	--	--	--	--
Relationship of literature to life	×	--	×	--	--	×	×	×	×	--	×	×
Preparation for college	×	--	--	--	×	×	--	×	--	×	×	--

* Number of schools in which textbook is used.

Aims of literature.—In Table 30 are listed the aims of literature expressed in the prefaces of the most frequently used literature books in twenty-one Catholic high schools. The list of aims are those Smith found in analyzing 180 courses of study,[29] and the aims recognized by the authors in the prefaces or introductions of literature books are checked under the letter that represents the book. All books are anthologies except the one under "L" in the last column, which is a history of English literature. The aims most frequently mentioned in the courses of study are also emphasized in the textbooks used in the twenty-one high schools, with the exception of the one "to develop character and ideals." The most common aims mentioned in the prefaces or introductions are: (1) To provide vicarious experience; (2) to

29 *Ibid.*, p. 45.

give a knowledge of literary types; (3) to stimulate enjoyment in reading; (4) to develop standards for future reading; and (5) to acquaint the pupil with the best in current or contemporary literature.

Contents of textbooks in literature.—Literature and Life, the most commonly used series of books in literature, is organized according to theme with the various types of literature grouped under the theme. The most common organization, however, is according to type, three of the four sets of books being built on this plan. The Grade IX book in each series usually begins with a good selection of short stories which invite further reading. The usual plan of presentation is to give an explanation of the type under consideration, to furnish a "headnote" with each selection for motivating purposes, to present topics for discussion after each selection, to provide lists of supplementary readings, and to offer a short biography of outstanding authors. The books for Grades XI and XII deal with American and English literature, respectively, with a running account of the history of literature.

The numbers of the various types of literature in the books most frequently used in the twenty-one schools are presented in Table 31. In the first two years the short story, narrative poetry, lyric poetry, and the essay are well represented. In Grades XI and XII, lyric poetry and the

TABLE 31

NUMBERS OF SELECTIONS OF DIFFERENT TYPES IN THE LITERATURE BOOKS MOST FREQUENTLY USED IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS

Literary Types	Textbooks in Literature										
	IX		X		XI			XII			XI-XII
	A	B	C	D	E	F	G	H	I	J	K
	12*	2	12	2	5	8	2	5	7	2	5
Short story	10	16	10	15	20	17	14	6	9	7	6
Narrative poetry	16	19	16	14	54	24	32	45	36	24	20
Biography	3	5	9	4	8	8	4	1	4	4	----
Lyric poetry	27	28	28	29	169	159	82	163	174	76	57
Essay	17	10	21	16	26	16	23	31	24	27	9
Drama	1	----	2	----	----	----	1	2	2	2	5
One-act play	2	6	4	4	1	3	2	2	3	1	2
Novel	1	1	1	1	3†	6†	1	----	12†	1	1
Letters	----	----	----	----	4	2	----	7	5	----	1
Oration	----	----	2	----	4	2	9	----	----	----	5

* Number of schools in which the textbook is used.

† Parts of novels.

essay receive major emphasis. As was mentioned previously,[30] each book contains one or more complete works—novel, drama, or narrative poem —demanded by colleges or universities to fulfill entrance requirements.

Summary.—Almost all of the Catholic high schools of this study have abandoned the reading of four or five classics a year in connection with instruction in English and have substituted anthologies containing every type of literature, with wide selection among the shorter types. A pupil thus makes acquaintance with a greater number of writers and their works. Generous portions of the volumes are given to contemporary literature.

The authors of the anthologies apparently realize that all pupils may not find enjoyment in reading, and, therefore, the early selections, usually short stories, are of such a nature as to invite reading.

Lists of outside reading demanded of pupils in English are not included in the preceding section of this study. The usual practice is to require the reading of several books a semester, the pupil being allowed to choose the type in which he is interested. But as the books are very often secured from the school library, those with some value are usually read. In one school, a teacher required each pupil to read one book every two weeks, but the most common practice is to require one a month.

Projects are sometimes a part of the work in literature. The outstanding one was the making by Seniors of a bibliography of Catholic authors whose works were in the Public Library. A seventy-two-page printed pamphlet was published with titles and authors arranged according to type of literature.

TEXTBOOKS IN OTHER SUBJECTS

Religion.—Religion operating in one's life and in the formation of character are the general aims of religious instruction, and these aims are reflected in the objectives emphasized in almost all the textbooks in use in the schools of this study. These common objectives are to form religious character and to train men and women to know their religion, to practice it, and to be able to give an account of it when called upon to do so.

The content of the first three years is rather uniform in almost all

30 P. 65.

schools. It consists of: (1) "Moral," under which are treated natural and supernatural virtues, the commandments of the Decalogue, the exhortations of the Sermon on the Mount, man's rights and duties in regard to himself, to his fellow-man, and to properly constituted authority, etc.; (2) prayer and the sacraments and other religious practices; and (3) the articles of the Apostles' Creed, or matters of faith in which Catholics must believe.

There is no general agreement as to the subject matter of the course in religion in Grade XII, but sociology, apologetics, and church history predominate.

Social studies.—The most frequently mentioned objectives and practically the only ones stated in the prefaces of the textbooks in history are "socio-civic efficiency" or "intelligent living," "knowledge of the past in order to interpret the present," "making the world intelligible for pupils," and "knowledge of social, economic, and political principles." All are broad, general objectives. Perhaps the most noticeable omission is "appreciation of the interdependence of nations."

In the ancient, ancient-medieval, and world histories, the political events constitute the thread that gives continuity to the story, and each author emphasizes the social and economic aspects of history and the different institutions that developed during the course of the ages. Each gives an account of preliterary history, a survey of early peoples, their lands and political history, and the development of cities, city-states, states, and empires during the various periods. Chapters dealing with such topics as "literature and learning," "religion and morals," "life in the age of Pericles," "the land and the people," "education and political conditions," and sections treating of art, drama, education, commerce, industries, land-holding, laws, money, ways of living, manners and customs, etc., are the rule rather than the exception.

Institutions, such as the Church, monasticism, the universities, and movements, such as colonial expansion, the crusades, the growth of cities, the Renaissance, the Reformation, and the beginning of national states, occupy much of the content of history devoted to the Middle Ages.

The textbooks in modern history, after reviewing the earlier periods, have as their central theme the rise of democracy; and this theme runs through such topics as the development of national states and the nationalistic spirit, the conflicts between countries and dynasties, im-

perialism, growth of commerce and industry, social reforms, and revolutions. The World War, the Russian Revolution, readjustments and difficulties in carrying out treaties, the League of Nations, control of armaments, and the world today, are the usual contents of the closing chapters.

In the textbooks in American history emphasis is placed on social and economic factors, political parties, the growth of the Constitution, diplomatic relations, westward expansion, reform movements, big business, the growth of democracy, and the contribution of the immigrant. The major topics, as indicated by the number of pages given to them by the textbooks most frequently used in the schools of this study, are the colonial period, the struggle for independence, the establishment of the federal government, the slavery controversy, and the development of industry and business following the Civil War. In general, it may be said that the topics receiving most emphasis are the same ones which are reported in the National Survey of Secondary Education as receiving most attention in courses in senior high schools.[31]

With the exception of the objectives, "knowledge of the past in order to interpret the present," the aims mentioned above for history are also stressed in civics, citizenship, economics, and sociology textbooks. In addition, however, the textbooks in these subjects stress aims concerned with participation and co-operation in civic activities and with arousing proper attitudes and interests. One does not find, however, reference to such aims as "knowledge of civic rights, duties, and responsibilities," "respect for law and institutions," "tolerance and open-mindedness," "general culture," and "cultivation of an interest in reading the social sciences,"—aims more or less necessary for peaceful, co-operative living and for securing the knowledge required for the intelligent appreciation of current problems.

In civics, the textbook used in two-thirds of the schools is devoted largely to the political organization of society, although the social and economic phases are given some consideration. The topics ordinarily listed under civics are well provided for, but citizenship ideals, the force of public opinion, and the necessity for honesty and efficiency in office receive scant attention.

31 William G. Kimmel, *Instruction in the Social Studies*, pp. 48-49. National Survey of Secondary Education Monograph No. 22. United States Office of Education Bulletin No. 17, 1932.

In the textbooks in economics the usual topics are those necessary to get an understanding of the principles underlying economics. Problems nearer home, such as family budgets and expenditures, municipal finance, school budgets, consumer education, etc., are usually not given consideration.

The textbooks in sociology attempt to give an understanding of, and suggest remedies for, many of the complex social problems confronting the world today. These books, based largely on the encyclical letters of Pope Leo XIII and of Pope Pius XI on social and economic questions, seek to instil in youth right attitudes and intelligent participation in meeting current issues.

Latin.—The textbooks used in Latin, especially in the first two years, were, with two exceptions, written after the Report of the Classical investigation was published, and they conform to the recommendations of that body.[32] In general, reading ability, knowledge of English grammar and derivatives, and acquaintance with Roman life, literature, and history are the aims emphasized in the Latin books used in the Catholic high schools of this study.

In three of the first-year books, grammar up to the subjunctive is covered, and much continuous sight-reading relating to Roman life and civilization and classical history and tradition is included. A conscious effort is made to make one or two years of Latin valuable in themselves. For the most part, the books, especially in the first year, are functional and more concerned with pupils' present needs in language development than with future requirements in language. Sight translation, English derivatives, functional grammar, and limited translation of English sentences into Latin are, with one exception, characteristics of first-year textbooks in use.

In the second year, grammar and reading material usually make up the first semester's work, Caesar not being introduced until the second semester.

The third and fourth years, for the most part, are given over to Cicero and Virgil, respectively, although other ancient authors are included in some of the textbooks.

Modern foreign language.—The textbooks in use in the modern

32 *The Classical Investigation (Part I): General Report*, pp. 79-80. Princeton University Press, 1924.

languages—German, French, and Spanish—stress the objectives recommended in the report prepared for the Modern Foreign Language Study.[33] These objectives are to read, understand, and use the language, to know the grammar necessary to read comprehensively, and to become acquainted with the culture of the particular country and its people.

In schools using the conventional grammar, separate volumes of reading material are used in connection with it. The "Language, Literature and Life" type of textbooks, used extensively in the schools, has all the merits of the conventional grammar, and, in addition, combines a generous amount of reading with grammar and provides for the cultural acquisitions that should be part of the study of any foreign language.

Algebra.—The authors of textbooks in algebra used most frequently in the high schools of this study state in the prefaces of their books that they have followed the recommendations of the National Committee on Mathematical Requirements. When they do mention aims, the objectives conform in general with those recommended by the National Committee.[34] The aims most frequently mentioned are: "knowledge and power to apply mathematical concepts," and "thinking in terms of relationships." The cultural and disciplinary values of mathematics are not frequently alluded to.

The conventional topics in algebra are presented in the textbooks in that subject. Considerable emphasis is placed on the relations between algebra and geometry, especially in the section dealing with ratio and proportion. Formulas and equations, verbal problems, and graphs, especially statistical graphs, are introduced early in the books. The verbal problems contain situations that one frequently meets in life. Arithmetic, when presented at all, is generally employed in introducing new processes.

Geometry.—The aims most frequently mentioned by authors of textbooks in geometry are: "accuracy and facility in fundamental processes in geometry," "logical reasoning" or "clear, accurate think-

33 Algernon Coleman, *The Teaching of the Modern Foreign Languages in the United States*, pp. 107-8. New York: Macmillan Co., 1929.

34 *The Reorganization of Mathematics in Secondary Education*, Part I, pp. 6-13. A Report by the National Committee on Mathematical Requirements under the Auspices of the Mathematical Association of America, Inc. Boston: Houghton Mifflin Co., 1927.

ing," and "realization of the beauty of geometric design." Such important outcomes as "the development of space perceptions" and "the exercise of spatial imagination" are not referred to by authors.

The basic content of textbooks used in geometry is standardized, but the presentation conforms to modern ideas in the teaching of geometry. The most frequently used textbooks, instead of devoting extensive space to definitions, axioms, and postulates with few or no applications, contain an introductory chapter devoted to the use of instruments in drawing designs and making constructions, to discussion of proofs and method of proving, and to introductory exercises leading up to proofs. The definitions and axioms are later presented with problems and illustrations. The introduction to actual demonstrative geometry is gradual.

In regard to propositions, exercises which lead to and develop theorems are given first and then the statement of the theorems is presented. For the most part, the basic propositions are proved in full, with references to the less obvious reasons. The proof is left to the pupil in propositions less necessary for sequence. Usually practical exercises based on the proposition and of direct application in life follow the proofs.

Reviews, tests, historical notes, optional exercises to provide for individual differences, correlation with algebra and trigonometry, and omission of incommensurable exercises are other features of the geometry books in use in the Catholic high schools. In general, it may be said that the books most frequently used contain these and other features of newer textbooks in geometry described by Freeman.[35]

Science.—The objectives of the textbooks in science conform, in general, to those described in the Thirty-First Yearbook of the National Society for the Study of Education.[36] The general aim and the major objectives of science are stated in the Yearbook in the following words:

> This committee then recognizes the aim of science teaching to be contributory to the aim of education; viz., life enrichment. It recognizes the objectives of science teaching to be the functional understanding of the major generalizations of science and the development of associated scientific attitudes.[37]

[35] Ellen M. Freeman, "Textbook Trends in Plane Geometry," *School Review*, XL (April, 1932), 282-94.

[36] S. Ralph Powers, "The Objectives of Science Teaching in Relation to the Aim of Education," *A Program for Teaching Science*, pp. 41-57. Thirty-First Yearbook of the National Society for the Study of Education, Part I. Bloomington, Ill.: Pubic School Publishing Co., 1932.

[37] *Ibid.*, p. 57. Quoted by permission of the Society.

The authors in the prefaces of the most frequently used textbooks in science mention "understanding the major generalizations of science" as one of their objectives, and all the writers of general science, biology, and chemistry books recognize "development of associated scientific attitudes," but only one author of textbooks in physics mentions this objective. Writers of textbooks are not so much in agreement, however, on the specific scientific attitudes. "Open-mindedness" is not mentioned at all; "the habit of weighing evidence" is mentioned by only two authors; and "the habit of delayed response" is recognized by three. "Knowledge of the contribution of science to modern life and human progress," "citizenship and character values" as the result of studying science, and "straight thinking," are mentioned by only a minority of writers.

The textbooks used in general science, built on the unit plan, present significant problems first and then introduce principles, derived from the various sciences, to explain the problems. The ten topics to which most space is devoted are: (1) mechanics, (2) the human body, (3) air, ventilation, and heating homes, (4) electricity and magnetism, (5) supply and uses of water, (6) the earth as a planet, (7) health, sanitation, and bacteria, (8) transportation, (9) weather and climates, and (10) fire and fuels.

The textbooks in biology deal with plant, animal, and human biology, and these three broad blocks of content are about equally emphasized. The social significance of biology and its application to modern life are also stressed.

In the textbooks in chemistry, principles and laws together with the applications of chemistry and its contribution to society receive major emphasis. The three usual topics—elements and compounds, principles, and applied chemistry—constitute the main portions of the subject matter.

In physics the ten topics receiving major emphasis, as measured by page space devoted to them, are: (1) electricity, (2) heat, (3) light, (4) sound, (5) atomic physics, (6) forces, (7) mechanics of liquids, (8) mechanics of gases, (9) laws of motion, and (10) simple machines. These topics correspond to those which Herriot found as appealing to boys.[38]

38 M. E. Herriot, "Life Activities and the Physics Curriculum," Francis D. Curtis (ed.), *Second Digest of Investigations in the Teaching of Science*, p. 300. Philadelphia: P. Blakeston's Son and Co., Inc., 1931.

Commercial subjects.—Commercial courses are classified by Lyon either as "technical-business" or "social-business" subjects.[39] The former includes, among others, typewriting, shorthand, bookkeeping, and commercial arithmetic; and the latter comprises such subjects as economics, commercial geography, business law, business English, and business training and administration.[40]

The purposes of commercial courses are to prepare for both social and vocational efficiency.[41] Both purposes are emphasized by writers of textbooks in the commercial field, but in the "technical-business" subjects the aims, which stress techniques along with certain accompanying traits necessary in clerical callings, lean toward vocational objectives, whereas in the "social-business" subjects the social aim is predominant.[42]

The content of bookkeeping and commercial arithmetic, although largely technical, includes sections on such important everyday topics as family budgets, individual accounts, household problems, etc. Typewriting and shorthand are strictly technical, but the subject matter of commercial law and commercial geography emphasizes the social side of business. As the "technical-business" subjects are more frequently offered in the schools of this study than the "social-business" courses are,[43] it is probable that the vocational aim of the commercial subjects is stressed more than are the social objectives.

SUMMARY OF THE CHAPTER

In the schools of this study the textbooks used in religion, English, social studies, foreign languages, mathematics, science, and commercial subjects are usually well known ones in these fields. The authors are either recognized research workers or experienced teachers in secondary schools. University professors and high school teachers collaborate in writing many of the textbooks. The aims of the books are, in general, based on those formulated by authoritative commissions or given in sur-

39 Leverett S. Lyon, *Education of Business,* pp. 356-59. Chicago: University of Chicago Press, 1931.

40 *Ibid., pp.* 357 and 369.

41 *Development of the High School Curriculum,* p. 435. Sixth Yearbook of the Department of Superintendence. Washington: National Education Association, 1928.

42 Cf. Frederick J. Weersing, *A Study of Certain Aspects of Commercial Education in the Public High Schools of Minnesota,* pp. 30-56. Minneapolis, Minn.: The University of Minnesota, 1927.

43 Table 20, p. 45.

veys. The content of the textbooks, while rather conservative and traditional, is such that many of the aims of the various subjects may be realized from studying it.

Much of the subject matter of the textbooks is of immediate use to pupils in activities of everyday life; some of it is useful in understanding the environment in which pupils live; some of it is useful largely in that it satisfies the requirements for college entrance; and some of it will probably be of value when pupils become home-makers. The foreign languages, mathematics, and certain sections of history and literature are more directly related to preparation for college than to everyday living; science, social studies, and commercial subjects contain content that makes the environment more understandable; commercial subjects contain subject matter on family finances, budgets, etc.; religion, English, commercial subjects, science, and the other subjects to a lesser extent contain materials of immediate and personal use.

The examination of subject matter raises many questions. Is the content of some courses too difficult for considerable groups of pupils? Does it lack interest for many of them? Are the reading and recreational interests of pupils seemingly influenced by the subject matter of courses? Are these activities of such a nature that some courses should contain units in providing for discrimination, appreciation, and improvement in taste? Do the subjects former pupils followed in high school apparently influence them in pursuing desirable forms of leisure-time activities? Did the subjects prepare former pupils for the types of work in which they engaged? Consideration is given to these questions in later chapters.

CHAPTER V

THE CATHOLIC HIGH-SCHOOL BOY AND HIS ACHIEVEMENT AS MEASURED BY TEACHERS' MARKS

THE PURPOSE OF THE CHAPTER

In the present chapter data are given concerning the pupils in the twenty-one Catholic high schools for boys: their intelligence as measured by intelligence tests, the socio-economic status of their fathers, the nationality and country of birth of their parents, and their educational and vocational plans. This information was obtained by giving intelligence tests to samples of pupils and by submitting a questionnaire to almost nine-tenths of the entire enrolments of these schools. The data are for pupils who were in school in 1936-37.

A second type of information concerns primarily the achievement of pupils in the twenty-one schools: the numbers and percentages of pupils failing in the various subjects, the numbers and percentages withdrawing and their success in school, the number of graduates and the length of time it took them to complete their high-school course, and the number whose transcripts of credits were sent to colleges and universities. These data, secured directly from the school records, refer to pupils in school in 1935-36.

As the two types of information are for different years, the groups of pupils are not the same in both cases. The Freshmen, Sophomores, and Juniors of 1935-36 are the Sophomores, Juniors, and Seniors, respectively, for 1936-37. Freshmen who entered in September, 1936, are represented only in the first type of data, and the Seniors who were graduated in June, 1936, are represented in the second.

The writer is of the opinion that this discrepancy in the data will not seriously affect evaluations of the curriculum, because: (1) The Seniors are a rather selected group and therefore one Senior class probably does not differ greatly from another in the items that are considered in this chapter; (2) the characteristics of a school and of a school population do not change, as a rule, in a single year, and, hence, the Seniors of 1935-36 are probably not much different from those of

1936-37; (3) the Catholic high schools here considered are taught by members of teaching orders who are devoting their lives to teaching, and school policies and teaching personnel do not change to any great extent from year to year. Therefore the achievement of pupils as measured by their marks would probably not differ much from year to year for different groups. (4) The data for Freshmen and Sophomores, as will be evident later on, are so nearly equivalent that conclusion regarding one group may be applied to the other in almost all instances. Even in one of the most significant measures for evaluation—intelligence—Freshmen and Sophomores of 1936-37 are, as groups, so nearly equal that adverse criticism of the curriculum from the point of view of intelligence will apply no more rigidly to Freshmen than to Sophomores —the Freshmen of the preceding year.

THE NUMBER OF PUPILS REPRESENTED

The number of pupils answering the questionnaire.—The numbers and percentages of pupils in the twenty-one Catholic high schools who answered the questionnaire are given in Table 32. The total enrolment is as of September, 1936, but pupils filled out the questionnaire in April and May, 1937. About nine-tenths (87.6 per cent) of the entire enrolment, or 7,459 boys, answered the inquiry form. Three hundred and twenty-eight, or 3.9 per cent, had discontinued up to the time the writer called on the schools; some pupils were undoubtedly absent on the days the questionnaire was submitted, and in some schools the principals, who took care of the distribution of the forms, evidently overlooked some sections or groups of pupils. By comparing the enrolments in each

TABLE 32

NUMBERS AND PERCENTAGES OF FRESHMEN, SOPHOMORES, JUNIORS, AND SENIORS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS, 1936-37, WHO ANSWERED THE STUDENT QUESTIONNAIRE

Groups	Number Answering	Total Enrolments	Percentage Answering
Freshmen	2,428	2,770	87.7
Sophomores	1,940	2,200	88.2
Juniors	1,679	1,869	89.8
Seniors	1,412	1,672	84.4
All	7,459	8,511	87.6

grade in each school with the numbers of pupils from each grade who answered the questionnaire, it appears that five Senior, two Junior, two Sophomore, and four Freshman sections or class groups—approximately 400 pupils—did not have the opportunity to fill out the form. As almost nine of ten pupils in each of the four high-school grades filled out a questionnaire, there can be little doubt that the data are representative of the entire student body of the twenty-one schools.

ETHNIC ORIGINS

Many studies in education have been made on the relation between the racial origins and nationality of fathers of pupils, and such factors in school adjustment as retardation, elimination, achievement, intelligence, and choice of curriculums. The question of ethnic origins has some bearing on the curriculum and factors relating to it, and, therefore, consideration of ethnic groups is necessary in evaluating the curriculum.

Nationality of fathers of pupils.—The numbers and percentages of pupils in each year and in all years whose fathers are of different ethnic origins are presented in Table 33. In each grade a large number of pupils answered the question regarding the nationality of their parents by saying they were Americans. The writer tabulated the number of pupils both of whose parents were born in foreign countries, and in going over the questionnaires, it was evident that pupils of Italian, Polish, and Irish extraction did not have difficulty in understanding this question. Nor did those whose fathers were born in countries other than the United States. For the most part, the fathers of those pupils who gave "American" as an answer to the question regarding nationality were born in the United States.

Pupils of Irish extraction are in the Catholic high schools of this study in greater numbers than those of any other nationality. They comprise 30.9 per cent of all pupils. Those of German descent rank second in numbers, being 21.6 per cent. The Poles comprise 8.4 per cent; the English and Scotch combined, 4.9 per cent; and the Italians, 3.3 per cent. These figures are for all schools combined. In some schools the percentages vary considerably from those for all schools. One school is almost one hundred per cent Polish. In a few schools, located in cities which have a large German population, the number of pupils of German extraction usually exceeds those of Irish. With these exceptions,

TABLE 33
NATIONALITY OF FATHERS OF PUPILS

Nationality	Freshmen		Sophomores		Juniors		Seniors		All	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
American	475	19.6	324	16.7	244	14.5	201	14.2	1,244	16.7
Irish	683	28.1	596	30.7	581	34.6	446	31.6	2,306	30.9
German	502	20.7	443	22.8	347	20.7	317	22.5	1,609	21.6
French	92	3.8	47	2.4	38	2.3	42	3.0	219	2.9
Italian	97	4.0	68	3.5	46	2.7	38	2.7	249	3.3
Polish	200	8.2	179	9.2	139	8.3	112	7.9	630	8.4
Lithuanian	25	1.0	26	1.3	21	1.3	37	2.6	109	1.5
Canadian	10	0.4	9	0.5	9	0.5	4	0.3	32	0.4
English	89	3.7	68	3.5	73	4.3	59	4.2	289	3.9
Scotch	22	0.9	24	1.2	18	1.1	9	0.6	73	1.0
Czechoslovakian	44	1.8	41	2.1	36	2.1	37	2.6	158	2.1
Hungarian	30	1.2	22	1.1	14	0.8	14	1.0	80	1.1
Austrian	12	0.5	9	0.5	11	0.7	10	0.7	42	0.6
Dutch	16	0.7	14	0.7	15	0.9	13	0.9	58	0.8
Others	72	3.0	33	1.7	46	2.7	44	3.1	195	2.6
No answer	59	2.4	37	1.9	41	2.4	29	2.1	166	2.2
Total	2,428	100.0	1,940	99.8	1,679	99.9	1,412	100.0	7,459	100.0

however, the percentages for individual schools do not vary greatly from the percentages for all schools combined.

The data in the table indicate that children of certain nationalities drop out of school, while the holding power of the schools in the case of other nationalities increases from year to year. Children of Italian, Polish, French, Hungarian, Scotch, and Canadian descent are in the Senior year in smaller percentages than in the Freshman year. The number of cases, however, for some nationalities is too small to warrant valid conclusions. The small percentage of "Americans" in the Senior and Junior years is probably due to the fact that the Seniors and Juniors understood the question better than the Freshmen and Sophomores did. With these exceptions, the percentages of pupils in the Senior year are greater for each ethnic group than in the Freshman year. Elimination takes place among all national groups, but the percentage is greater for some than for others.

The country of birth of fathers of pupils rather than nationality is usually considered in investigations dealing with the characteristics of school pupils. In this study, country of birth will have a more important bearing on evaluation of the curriculum than nationality.

Country of birth of fathers.—Native whites of foreign-born or mixed parentage comprised 20.7 per cent of the population of the United States in 1930, and between 20 and 30 per cent of the population of the north central and western states.[1] The largest cities had the greatest percentage of the foreign-born, cities of over 500,000 containing 17 per cent of the total population of the nation, and 38.9 per cent of the foreign-born people.[2] As the Catholic high schools of this study are located in the larger population centers, it is, perhaps, to be expected that a rather large proportion of the fathers of pupils were born in foreign countries.

The numbers and percentages of boys in the twenty-one Catholic high schools whose fathers were born in the various countries are given in Table 34. Almost three-fourths, 72.2 per cent, of the fathers were born in the United States. The second largest representation came from Ireland, with 8.8 per cent of the fathers born in Ireland, and the third

1 Warren S. Thompson and P. K. Whelpton, "The Population of the Nation," *Recent Social Trends in the United States*, p. 23. Report of the President's Research Committee on Social Trends. New York: McGraw-Hill Book Co., Inc., 1933.

2 *Ibid.*

TABLE 34
COUNTRY OF BIRTH OF FATHERS OF PUPILS

Country of Birth	Freshmen		Sophomores		Juniors		Seniors		All	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
United States	1,784	73.4	1,420	73.2	1,194	71.1	988	69.9	5,386	72.2
Ireland	190	7.8	154	7.9	181	10.8	136	9.6	661	8.8
Germany	45	1.9	49	2.5	30	1.8	30	2.1	154	2.1
Italy	65	2.7	52	2.7	34	2.0	25	1.8	176	2.4
Poland	121	5.0	109	5.6	84	5.0	79	5.6	393	5.3
Lithuania	18	0.7	18	0.9	21	1.3	32	2.3	89	1.2
Canada	25	1.0	19	1.0	20	1.2	18	1.3	82	1.1
England and Scotland	20	0.8	15	0.8	13	0.8	9	0.6	57	0.8
Czechoslovakia	21	0.9	7	0.4	5	0.3	15	1.1	48	0.6
Hungary	24	1.0	20	1.0	13	0.8	12	0.8	69	0.9
Austria	21	0.9	15	0.8	11	0.6	11	0.8	58	0.8
Others	53	2.2	28	1.4	37	2.2	32	2.3	150	2.0
No answer	41	1.7	34	1.8	36	2.1	25	1.8	136	1.8
Total	2,428	100.0	1,940	100.0	1,679	100.0	1,412	100.0	7,459	100.0

largest group came from Poland, with a representation of 5.3 per cent. The total English-speaking percentage is 82.9.

Elimination of pupils from school is at work among all ethnic groups. In the five groups with the largest representations, the amount of withdrawal is relatively smaller among pupils whose fathers came from Ireland, Germany, or Poland, than among pupils whose fathers were born in the United States or in Italy. In other words, the percentages of pupils of Irish, German, or Polish extraction are greater in the Senior year than in the Freshman year, and the percentages of pupils whose fathers were born in the United States or in Italy are smaller in the Senior year than in the Freshman year. The preceding table bears out these facts, except for boys whose fathers are Poles, in which case there is a slight decrease in the percentage in the Senior year as compared with the Freshman year. Pupils whose fathers were born in Poland are not eliminated to so great an extent as those Polish boys whose fathers were born in this country.

The table gives indications only regarding elimination. It would be necessary to study the same group or grade throughout the four years of high school to come to a definite conclusion on the relation between elimination and country of birth of fathers.

Various investigations reveal that country of birth of fathers has some influence on elimination. Woofter has drawn on the Fifteenth Census figures to show that attendance at school during the compulsory school ages is slightly higher among white children born in this country of mixed and foreign-born parentage or of foreign-born parentage than it is among the children of native white parentage.[3] For optional attendance years, however, white children of native-born parents were in school in greater percentages than the native white children of mixed and foreign parentage, who in turn exceeded the percentages of children in school of foreign-born white parents.[4] Counts[5] gave evidence to show that the greatest amount of elimination in high school was among children whose fathers were born in Poland, Italy, Austria-Hungary, and the Scandinavian countries, while reten-

3 T. J. Woofter, Jr., "The Status of Racial and Ethnic Groups," *Recent Social Trends in the United States*, p. 586.

4 *Ibid.*

5 George S. Counts, *The Selective Character of American Secondary Education*, p. 108. Supplementary Educational Monographs, No. 19. Chicago: Department of Education, University of Chicago, 1922.

tion was best among children whose fathers were born in Germany, the British Empire, and Ireland. The National Survey of Secondary Education reported that 53 per cent of the fathers of continuation school pupils, that is, pupils who have left full-time schools but spend from four to eight hours a week in day schools, were born in foreign countries.[6] This is another indication that country of birth of fathers has some influence on elimination, although socio-economic status may be a more effective factor.[7]

Counts concluded, after considering the number of Seniors in the Bridgeport, Connecticut, high school whose fathers were immigrants in comparison with every one hundred Freshmen whose fathers were foreign born, that "the people from the north and west of Europe make a better showing than those from the south and east."[8] Table 35 bears out this statement for the pupils whose fathers were born in north and west Europe, but not for those born in the north-east. Boys whose fathers were born in Poland and Lithuania persist in high school, the percentage of Seniors in high school being 7.9 and of Freshmen, 5.9. The percentages of Seniors and Freshmen whose fathers were born in north and west Europe are, respectively, 13.5 and 11.1. The numbers of pupils whose father were born in south and south-east Europe are too small to draw valid conclusions from, but the data follow lines indicated by Counts.

Nationalities of mothers.—The data for nationalities and countries of birth of mothers of boys in the Catholic high schools of this study correspond so closely to those of the fathers that separate tables for mothers are not given. The percentage of mothers born in the United States, however, is 75.8 as compared to 72.2 per cent of the fathers, and the percentages born in foreign countries are less in each case than for the fathers. This is to be expected as the males usually immigrate in larger numbers and frequently marry native girls.[9]

6 Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake, *Part-Time Secondary Schools*, p. 29. National Survey of Secondary Education Monograph No. 3. United States Office of Education Bulletin No. 17, 1932.

7 *Ibid.*, p. 30.

8 Counts, *The Selective Character of American Secondary Education*, p. 108.

9 Woofter, Jr., "The Status of Racial and Ethnic Groups," *Recent Social Trends in the United States*, p. 599.

TABLE 35

NUMBERS AND PERCENTAGES OF FRESHMEN AND SENIORS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS WHOSE FATHERS WERE BORN IN DIFFERENT SECTIONS OF EUROPE

Countries and Sections	Freshmen		Seniors	
	Number	Percentage of all Freshmen	Number	Percentage of all Seniors
North-west Europe:				
Ireland	190	.....	136	.....
Germany	45	.....	30	.....
England-Scotland	20	.....	9	.....
Belgium	3	.....	6	.....
Holland	7	.....	1	.....
Scandinavia	2	.....	8	.....
Total	267	11.1	190	13.5
North-east Europe:				
Poland	121	.....	79	.....
Russia	4	.....	1	.....
Lithuania	18	.....	32	.....
Total	143	5.9	112	7.9
Central Europe:				
France	9	.....	6	.....
Czechoslovakia	21	.....	15	.....
Austria	21	.....	11	.....
Switzerland	2	.....	0	.....
Total	53	2.2	32	2.3
South Europe:				
Italy	65	.....	25	.....
Spain	1	.....	0	.....
Total	66	2.7	25	1.8
South-east Europe:				
Greece	1	.....	0	.....
Hungary	24	.....	12	.....
Jugoslavia	13	.....	8	.....
Total	38	1.6	20	1.4

Both parents foreign-born.—Approximately one-fourth of the fathers or the mothers of pupils in these Catholic high schools were born in foreign countries. But less than one-fourth of the pupils came from homes in which both parents were foreign. In many cases the father may have been born in a foreign country and the mother was native born or *vice versa.* Thirteen hundred and six boys, or 17.5 per cent of 7,459 boys who answered questionnaires, came from homes in which both parents were born outside of the United States. The numbers and percentages of pupils both of whose parents were born in foreign countries are reported in Table 36. The greatest percentage of foreign-born, more than a third of all, came from Ireland; almost a fourth came from Poland, and about a tenth, from Italy. Only 5.6 per cent of all foreign parents were born in Germany.

TABLE 36

NUMBERS AND PERCENTAGES OF PARENTS BOTH OF WHOM WERE BORN IN FOREIGN COUNTRIES

Country	Number	Percentage of Total Foreign Born
Ireland	458	35.1
Germany	73	5.6
France	1	0.1
Italy	129	9.9
Poland	313	24.0
Canada	33	2.5
England	18	1.4
Scotland	8	0.6
Russia	2	0.2
Greece	5	0.4
Czechoslovakia	30	2.3
Hungary	45	3.4
Austria	33	2.5
Belgium	12	0.9
Lithuania	58	4.4
Holland	7	0.5
Scandinavian countries	3	0.2
Switzerland	3	0.2
Jugoslavia	47	3.6
Mexico	5	0.4
Syria	21	1.6
Malta	2	0.2
Total	1,306	100.0

SOCIO-ECONOMIC STATUS

The occupation or means of livelihood of the head of a family is one of the most commonly used indices for determining the socio-economic status of pupils, and "intellectual development, amount of education, economic resources, social level, and similar factors are positively correlated with occupational status."[10] In the evaluation of the curriculum, therefore, the socio-economic status of the fathers of pupils is a factor of some importance.

The socio-economic status of fathers.—The classification of the occupations of the fathers of pupils in this study follows that used by Counts.[11] The questions which pupils were asked to answer regarding the occupations of their fathers were: "Present occupation. Where or for whom does he work? Is he owner or part owner of the business in which he works? Does he have any title as president, foreman, etc.? What title? What are his chief duties? What is his present occupation or his last position if he is not working now?" The classified answers to the questions are given in Table 37 for all pupils in each of the four years of high school and for all pupils combined.

Fathers of pupils are found in all occupational groups, but not many of them are engaged in agriculture, as might be expected, since the schools are located in rather large cities.

An analysis of Table 37 reveals that selection is going on in the Catholic high schools, as the percentages of pupils whose fathers are engaged in the first five groups of occupations show a slight but unmistakable increase in progressing from the Freshman to the Senior grade, while the percentages decrease slightly in all the other occupational groups with the exception of "miscellaneous trades" and "common labor." In these two groups there is a decrease until the Senior year is reached. The larger percentages represented in the Senior year in these two groups do not result from data from one or two schools, but reflect the condition in almost all schools.

The probable amount of elimination in the first two years of high

10 Grayson N. Kefauver, Victor H. Noll and C. Elwood Drake, *The Secondary-School Population*, p. 37. National Survey of Secondary Education Monograph No. 4. United States Office of Education Bulletin No. 17, 1932.

11 Counts, *The Selective Character of American Secondary Education*, pp. 22-23.

TABLE 37

OCCUPATIONAL CLASSIFICATION OF FATHERS OF PUPILS

Occupations of Fathers	Freshmen		Sophomores		Juniors		Seniors		All	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Proprietors	227	9.3	184	9.5	153	9.1	159	11.2	723	9.7
Professional service	147	6.1	118	6.1	119	7.1	101	7.2	485	6.5
Managerial service	292	12.0	287	14.8	247	14.7	214	15.1	1,040	13.9
Commercial service	224	9.2	222	11.4	195	11.6	149	10.6	790	10.6
Clerical service	183	7.5	157	8.1	135	8.0	101	7.2	576	7.7
Agricultural service	26	1.1	17	0.9	17	1.0	13	0.9	73	1.0
Artisan-proprietors	91	3.7	71	3.7	60	3.6	48	3.4	270	3.6
Building and related trades	139	5.7	92	4.7	79	4.7	74	5.2	384	5.1
Machine and related trades	229	9.4	182	9.4	149	8.9	105	7.4	665	8.9
Printing trades	43	1.8	33	1.7	30	1.8	14	1.0	120	1.6
Miscellaneous trades	100	4.1	71	3.7	61	3.6	63	4.5	295	4.0
Transportation service	260	10.7	152	7.8	140	8.3	117	8.3	669	9.0
Public service	175	7.2	127	6.5	98	5.8	78	5.5	478	6.4
Personal service	53	2.2	47	2.4	26	1.5	22	1.6	148	2.0
Miners, lumberworkers	10	0.4	6	0.3	4	0.2	3	0.2	23	0.3
Common labor	95	3.9	75	3.9	58	3.5	57	4.0	285	3.8
Occupation unknown	134	5.5	99	5.1	108	6.4	94	6.7	435	5.8
Total	2,428	99.8	1,940	100.0	1,679	99.8	1,412	100.0	7,459	99.9

school among pupils whose fathers are in the lower socio-economic classifications is indicated in Table 38. In the upper divisions are grouped the percentages that represent the numbers of pupils whose fathers are proprietors, excluding artisan-proprietors, or are engaged in professional, managerial, commercial, or clerical capacities; and in the lower division are included all other classifications. The greatest drop in the percentages, 5.2, is between the Freshman and Sophomore groups of pupils whose fathers are in lower occupational levels. There is a steady decrease in the percentages of the lower economic division in proceeding from Freshmen to Seniors and a steady increase in the upper division. The differences indicate that pupils whose fathers are in the upper economic levels stay in school in larger numbers than those whose fathers are in the lower economic levels.

TABLE 38

PERCENTAGES OF PUPILS WHOSE FATHERS ARE IN THE UPPER OR LOWER ECONOMIC DIVISIONS OF OCCUPATIONS

Divisions	Freshmen	Sophomores	Juniors	Seniors	All
Upper divisions	44.1	49.9	50.5	51.3	48.4
Lower divisions	50.2	45.0	42.9	42.0	45.7
No answer	5.5	5.1	6.4	6.7	5.8

The findings in various investigations on the relation between socio-economic status and elimination confirm those of this study. Holley in an early investigation on home conditions and persistence in school concluded that the amount of schooling a child receives is determined to a great degree by the educational, social, and economic status of the family.[12] Counts showed conclusively that the children of fathers of lower economic levels did not constitute their proportionate share of the school enrolment and that they were eliminated from school to a greater extent than the children of the higher socio-economic groups.[13] He concluded that "socially the student population in the Senior year of high school is highly selected as compared with that of the Freshman

12 Charles E. Holley, *The Relationship Between Persistence in School and Home Conditions*, p. 96. Fifteenth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1916.

13 Counts, *The Selective Character of American Secondary Education*, p. 37.

year or the earlier grades."[14] Madsen, in a study carried on at the same time as that of Counts, presented data which led to the same conclusion that Counts drew.[15] Dear recently found that elimination in the high schools of eight cities in Michigan is greatest among pupils from the lower socio-economic levels.[16] Chilson concluded from a study of the socio-economic status of Grade IX pupils in the public high schools of Chicago that "the occupation of the father largely determines the income of the family and the probable length of time which the pupil may devote to scholastic training.[17] Douglass and Wind presented evidence which showed 6.3 per cent of the fathers of pupils who withdrew from junior high school were in professional, proprietory, and commercial service, and 77.8 per cent were artisan-proprietors, and skilled and unskilled laborers.[18] Bell concluded in his recent investigation of the youth of Maryland, that "of all the factors considered . . ., probably the most potent one in determining a youth's grade attainment is his father's occupation."[19] Lack of achievement was not included among the factors, but only 1.8 per cent of pupils gave "subjects too difficult" as a reason for leaving school.[20]

Hopkins, however, came to the conclusion that inability to do the regular school work was the most influential factor in causing pupils to withdraw and that economic status of the family was not an important cause.[21] Sims, also, concluded that among white pupils in Louisiana

14 *Ibid.*, p. 45.

15 I. N. Madsen, "The Contribution of Intelligence Tests to Educational Guidance in the High School," *School Review*, XXX (November, 1922), 692.

16 R. Ernest Dear, "Distribution and Persistence According to Paternal Occupations Represented in the Secondary Schools in Michigan," *Journal of Educational Research*, XXVI (April, 1933), 591.

17 Claude Martin Chilson, "Socio-Economic Status of Ninth-Grade Pupils in the Chicago Public Schools," p. 91. Unpublished Master's thesis, Department of Education, University of Chicago, 1930.

18 H. R. Douglass and Kate Wind, "Factors Related to Withdrawal from Junior High Schools in Minneapolis," *Elementary School Journal*, XXXVII (January, 1937), 379.

19 Howard M. Bell, *Youth Tell Their Story*, p. 58. Washington: American Council on Education, 1938.

20 *Ibid*, p. 64.

21 L. Thomas Hopkins, *The Intelligence of Continuation School Children in Massachusetts*, p. 107. Harvard Studies in Education, Vol. V. Cambridge, Mass.: Harvard University Press, 1924.

TABLE 39

PERCENTAGE DISTRIBUTION, ACCORDING TO OCCUPATIONAL STATUS, OF FATHERS OF PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS, IN LARGE URBAN CATHOLIC HIGH SCHOOLS FOR BOYS IN MINNESOTA, IN ELEVEN GENERAL HIGH SCHOOLS, AND IN THE HIGH SCHOOLS OF FOUR CITIES.

Group	Twenty-one Catholic High Schools	Large Urban Catholic High Schools, Minnesota*	Eleven General Public High Schools†	Public High Schools in Four Cities‡
	Percentage	Percentage	Percentage	Percentage
Proprietary	9.7	24.4	11.3	19.8
Professional	6.5	7.1	7.5	9.4
Managerial	13.9	8.5	30.9	16.5
Commercial-clerical	18.3	12.9	9.4	15.3
Agricultural	1.0	2.7	.....	2.4
Manual	44.7	35.4	36.0	33.4
Unknown	5.8	9.0	4.9	3.2
Total	99.9	100.0	100.0	100.0

* Koos, *Private and Public Secondary Education*, p. 41.

† Data derived from Grayson N. Kefauver, Victor H. Noll and C. Elwood Drake, *The Horizontal Organization of Secondary Education*, p. 150. National Survey of Secondary Education Monograph No. 2. United States Office of Education Bulletin No. 17, 1932.

‡ Adapted from Counts, *The Selective Character of American Secondary Education*, p. 26. Supplementary Educational Monographs, No. 19. Chicago: Department of Education, University of Chicago, 1922.

socio-economic status was not a determining cause for elimination from school.[22]

That the Catholic high schools here considered reach pupils from homes on the lower economic levels is obvious from a consideration of Table 39, in which the percentages in the different occupational groups are given for pupils in this study, for another group of Catholic high schools for boys in Minnesota, for eleven public high schools, and for the high schools of the four cities in Counts's investigation. The data presented in the table for the eleven public high schools are for pupils who are enrolled in the general, academic, scientific, commercial, and "other" curriculums. Although the classification of occupations used by Kefauver, Noll, and Drake is somewhat different from that used in this study, the only group in the eleven public high schools difficult to

22 Verner M. Sims, "The Selected Nature of a Particular School Population," *School Review*, XXXVI (April, 1928), 301.

classify is semi-professional workers, approximately 4 per cent of all. They would be placed in Counts's classification under managerial, commercial, and clerical workers. Half are included in the table under the professional group, and those with less training are placed under the commercial-clerical classification, as commercial-clerical workers with one year or more of college are included among the semi-professional workers.[23] They would, in any event, be included among the occupational groups other than "manual."

The "manual" group includes all other groups not specifically listed in the table. In the twenty-one Catholic high schools for boys, 44.7 per cent of the fathers are included in the "manual" group, while in the two groups of public schools, slightly more than a third of the fathers are in the lower economic groups.

The percentages representing the professional and proprietary occupations are lower for the schools of this study than for any of the other three groups of schools used for comparison.

The table shows that parents in the lower economic classifications send their boys to Catholic schools even though the tuition charge makes attendance a hardship.

INTELLIGENCE OF PUPILS

The Otis Self-Administering Test of Mental Ability, Higher Examination, Form A, was given to samples of pupils in eighteen schools. Two schools already had complete results for all pupils from this examination. In a third school, which the writer called on at the end of the school year, time did not permit the giving of intelligence tests. This school had complete data on intelligence for all pupils for the *Terman Group Test of Mental Ability.* The intelligence quotients for pupils of this school, however, are not included in the table following. The Otis test was chosen because it is easily administered, can be given within the usual class period, is objective, and has high reliability.[24]

The samples of pupils to whom the tests were given were in all cases in the regular English classes, required subjects, and, therefore,

23 Kefauver, Noll, and Drake, *The Secondary-School Population,* p. 44.

24 Arthur S. Otis, Otis Self-Administering Tests of Mental Ability, *Manual of Direction and Key* (rev.) for Intermediate and Higher Examinations, p. 12. Yonkers-on-Hudson: World Book Co., 1928.

the factor of selection was less operative than would have been the case had classes in advanced algebra or in typewriting, for example, been chosen. Only two schools employed ability grouping, and both had on file intelligence quotients for all pupils for the Otis test. The intelligence quotient of every third pupil was selected for use in this study.

Each teacher was given the manual of directions and a mimeographed sheet of directions calling attention to the necessity (1) of having pupils work out the introductory questions carefully, (2) of not allowing them to look at the other pages of the test or to begin until the signal was given, and (3) of writing down the hour, minute and second when the test was begun and adding thirty minutes so as to know exactly at what second pupils must cease writing.

Approximately 150 tests were given in each of the eighteen schools. In one school in which an industrial-arts program had been introduced for Freshmen in September, 1936, there were three distinct groups of Freshmen—one group taking Latin, a second, world history instead of Latin, and a third, industrial arts instead of Latin. In this school intelligence tests were given only to the three groups of Freshmen. In another school in which all Seniors and Juniors were enrolled in either the academic or the commercial curriculum, all Seniors and Juniors were given the examination, but no Freshmen or Sophomores. In the two schools with Otis test results for all pupils, every third score was taken in order to get approximately 150 cases. In two other schools the principals wished to have all pupils take the intelligence test. For these schools every second intelligence quotient was selected for Freshmen and Sophomores, but as the number of Juniors and Seniors, respectively, was approximately forty for each school, all the intelligence quotients were included.

The percentages of pupils who were given the intelligence test range from 12.3 in the largest school to 86.1 in the smallest. As most of these schools have enrolments between two hundred and five hundred pupils, approximately from a half to a third of the pupils in the individual schools were given the test. About a third (30.2 per cent) of the total enrolment of all schools is represented in the test results given in Table 40. Of the intelligence quotients presented, 27.7 per cent are for Freshmen; 25.1, for Sophomores; 22.9, for Juniors; and 24.3, for Seniors. The percentage distribution for grade enrolments for the twenty-one high schools in 1936-37 were 32.5, 25.8, 22.0, and 19.6, for Freshmen,

TABLE 40

THE DISTRIBUTION OF INTELLIGENCE QUOTIENTS OF 713 FRESHMEN, 645 SOPHOMORES, 590 JUNIORS, AND 624 SENIORS IN CATHOLIC HIGH SCHOOLS FOR BOYS, 1936-1937, AND THE MEDIAN AND UPPER AND LOWER QUARTILES

Step Intervals	Frequency				
	IX	X	XI	XII	All
	19*	18	18	19	
139.5-144.5	-----	-----	-----	1	1
134.5-139.5	-----	3	1	2	6
129.5-134.5	4	8	4	10	26
124.5-129.5	17	15	15	16	63
119.5-124.5	37	46	44	47	174
114.5-119.5	91	67	63	65	286
109.5-114.5	110	96	88	108	402
104.5-109.5	130	116	113	113	472
99.5-104.5	135	119	92	120	466
94.5- 99.5	86	80	66	71	303
89.5- 94.5	52	51	52	37	192
84.5- 89.5	30	29	28	26	113
79.5- 84.5	17	7	15	5	44
74.5- 79.5	3	6	7	2	18
69.5- 74.5	-----	2	2	1	5
64.5- 69.5	1	-----	-----	-----	1
Total	713	645	590	624	2,572
Percentage	27.7	25.1	22.9	24.3	100.0
Q_3	113.2	113.3	113.3	113.8	113.4
Median	105.7	105.7	106.0	106.7	106.0
Q_1	98.9	98.6	97.8	100.1	99.0

* Number of schools.

Sophomores, Juniors, and Seniors, respectively, according to the figures submitted by principals. The percentages representing tests and enrolments correspond closely in the case of Sophomores and Juniors, but for Freshmen the percentage taking the test is somewhat lower than the percentage for enrolment, and for Seniors it is somewhat higher.

The intelligence quotients of pupils were found because the tests were given at different times. The medians of all four high-school grades, as shown in Table 40, are approximately equal, a condition that does not obtain where a considerable amount of selection is at work. The median for both Freshmen and Sophomores is 105.7; for Juniors, 106.0; for Seniors, 106.7; and for all groups combined, 106.0.

As was explained above, the intelligence quotients of all boys in four schools were secured. In two of the schools, as is described below, the test results were probably not representative of the pupils in all schools. In the other two schools, the median intelligence quotients for 209 Freshmen, 207 Sophomores, 160 Juniors, 143 Seniors were, respectively, 105.7, 106.0, 106.1, and 106.4.

The range of the middle 50 per cent of the intelligence quotients, given in Table 40, is approximately the same for Freshmen and Sophomores, but the Freshmen are slightly more homogeneous. The range is greatest for the Juniors and smallest for the Seniors, indicating that by the time the Senior year is reached elimination of some pupils with lower intelligence quotients has taken place, although to show it conclusively, the intelligence quotients of the Senior group when Freshmen would have to be submitted, but no information was available. The middle 50 per cent of all groups combined falls within a range of approximately sixteen points.

The greater range of the middle 50 per cent of the intelligence quotients of Juniors might be explained by the intelligence quotients in one of the schools which had test results of all pupils. The medians for the 139 Freshmen, 79 Sophomores, 82 Juniors, and 94 Seniors were, respectively, 103.2, 102.3, 97.9, and 107.5. The test results for the Juniors verified the opinion of the principal that this grade, as a group, was noticeably weak.

In one school with an enrolment of 193 pupils, all except five of their fathers were Polish, and 163 fathers were born in Poland. Very probably Polish is the language spoken in the home, and, therefore, the intelligence quotients are not a fair measure of the intelligence of these pupils.[25] The median intelligence quotients of Freshmen, Sophomores, Juniors, and Seniors in this school were 97.6, 98.6, 97.6, and 100.9, respectively. The results tend to lower slightly the medians of pupils of all schools.

The approximate equivalence of the median intelligence quotients of pupils of all grades may be explained in several ways: (1) there is not much elimination in the Catholic high schools of this study; (2) many pupils with low intelligence quotients or without definite purpose

25 A. J. Mitchell, "The Effect of Bilingualism in the Measurement of Intelligence," *Elementary School Journal*, XXXVIII (September, 1937), 29-37.

do not enter these Catholic high schools, either because the program of studies is too difficult or because of the tuition charges; (3) some pupils who are doing well in school and probably have high intelligence quotients, as well as those who fail or who are of low mentality, withdraw from school either because they cannot meet the tuition rates or because they are not satisfied with the program of studies. The writer is of the opinion that the second and third reasons especially have something to do with the equivalence of the measures of intelligence presented, and probably the tuition charge is more operative in each instance.

The pupils *en masse* in these twenty-one Catholic high schools are a selected group from the point of view of intelligence. If an intelligence quotient of 100 is taken as the average or normal for the general population, the group of Catholic high school pupils is six points above the average.

About 75 per cent of the pupils whose intelligence quotients are listed in Table 40 have intelligence quotients of 100 or better, and more than a fourth are below 100. The number of Freshmen with intelligence quotients below 100 is 189, or 26.5 per cent; of Sophomores, 175, or 27.1 per cent; of Juniors, 170, or 28.8 per cent, and of Seniors, 142, or 22.8 per cent. Approximately 7 per cent of the pupils are below normal intelligence on the basis of the results of the tests; that is, they have intelligence quotients below 90.[26]

The Catholic high-school boys in this study are somewhat superior intellectually and more homogeneous in mental ability than are pupils in certain public high schools investigated in the National Survey of Secondary Education. The median intelligence quotients of pupils in all grades in all types of schools except trade schools was 102.[27] In Table 41 are presented the measures of intelligence found in the present study and those reported in the National Survey for general high schools and for all types of secondary schools—comprehensive, general, technical, and commercial—combined. The medians for the Catholic high schools and for the general high schools are very much the same except that the Freshmen in Catholic high schools have a median of 105.7 whereas that of pupils in the general high schools is 103. The range of

26 Rudolph Pintner, *Intelligence Testing*, p. 117. New York: Henry Holt and Co., 1931.

27 Kefauver, Noll, and Drake, *The Secondary-School Population*, p. 21.

TABLE 41

THE INTELLIGENCE QUOTIENTS OF PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS, IN GENERAL HIGH SCHOOLS, AND IN ALL TYPES EXCEPT TRADE SCHOOLS

Measure	Catholic High Schools	General High Schools*	All Types except Trade Schools*
Ninth grade:			
Median	105.7	103	99
First quartile	98.9	92	90
Third quartile	113.2	114	109
Number	713	736	1,643
Tenth grade:			
Median	105.7	105	101
First quartile	98.6	94	92
Third quartile	113.3	116	110
Number	645	935	2,906
Eleventh grade:			
Median	106.0	105	103
First quartile	97.8	95	94
Third quartile	113.3	116	112
Number	590	737	2,517
Twelfth grade:			
Median	106.7	107	105
First quartile	100.1	97	96
Third quartile	113.8	117	114
Number	624	643	2,054

* Kefauver, Noll and Drake. *The Secondary-School Population*, p. 21.

the middle 50 per cent of the intelligence quotients is greater in the general high schools for Freshmen, Sophomores, Juniors, and Seniors than for the corresponding groups in the Catholic high schools.

City high school pupils, as a group, are superior in intelligence to those from rural high schools on the basis of intelligence test scores.[28] As the pupils in the twenty-one schools here considered are with few exceptions living in the cities, the intelligence quotients would be expected to be somewhat higher than for the secondary school population in general.

From a consideration of the median intelligence quotients of pupils in the different grades of the high schools here considered, it is not evident that many pupils drop out of high school. The data do not show

28 Pintner, *op. cit.*, pp. 278-80.

the real extent of elimination, because pupils in the Catholic high schools of this study drop out of school largely at the end of the school year rather than during it. The large percentage of Seniors with intelligence quotients below a hundred indicates that some with low intelligence quotients persist in school. Below-average intelligence, as measured by a psychological test, however, is a factor in elimination, and various studies confirm the effect of low intelligence on withdrawal.

Proctor found that the median intelligence quotient of Freshmen in high school was 105, but three years later after elimination had its effect, the median of the graduates was 111.[29] He advised that a principal can be reasonably sure that 50 per cent of those who are below normal will discontinue within the first two years.[30] In another place, Proctor showed by examining the records of 955 high school pupils that of those with median intelligence quotients below 100, 63.0 per cent dropped out of school and only 17.0 per cent were graduated.[31]

Alltucker reported that 57 per cent of those who dropped out of the Berkeley, California, high school had intelligence quotients below 100, and 37 per cent were below average intelligence.[32]

Hopkins found that the median intelligence quotients of regular high-school groups of pupils were seventeen points higher than those of continuation pupils, who had withdrawn from high school.[33]

Woolley concluded that most important determinant as to what age a pupil discontinued from school was the level of ability.[34]

Aldrich found that the median intelligence quotients rose steadily from grade to grade in three high schools from different socio-economic sections of St. Louis County and that pupils of low intelligence were eliminated rather largely in Grade IX.[35]

29 William Proctor, *The Use of Psychological Tests in the Educational and Vocational Guidance of High School Pupils*, p. 22. Bloomington, Ill.: Public School Publishing Co., 1921.

30 *Ibid.*

31 William M. Proctor, *Educational and Vocational Guidance*, p. 33. Boston: Houghton Mifflin Co., 1925.

32 Margaret M. Alltucker, "What Can the Secondary School Do for the Student of Low I.Q?" *School Review*, XXXI (November, 1923), 654.

33 Hopkins, *op. cit.*, p. 65.

34 Helen T. Woolley, *An Experimental Study of Children*, p. 725. New York: Macmillan Co., 1926.

35 S. C. Aldrich, "The Intelligence of High-School Pupils," *School Review*, XXXV (November, 1927), 703-4.

Douglass and Wind, while concluding that retardation and socio-economic status were of more importance in causing the withdrawal of junior high-school pupils from school, gave evidence to show that low-ability groups withdrew in far greater numbers than those of above-average ability.[36]

EDUCATIONAL PLANS OF HIGH-SCHOOL PUPILS

Fifteen of the twenty-one Catholic high schools are located in cities having four-year colleges or universities, two are in suburban communities contiguous to large cities having colleges and universities, two are in cities having junior colleges only, and two are in cities with no recognized colleges. One of these cities without colleges is within twenty-five miles of St. Louis, in which universities are located, and the other city has a branch of Indiana University Extension. All pupils of the schools here considered can, therefore, pursue studies beyond those of the regular four-year high school without leaving home. This probably has a bearing on the pupils' educational plans given in Table 42 and especially on the large numbers who plan to enter colleges or universities.

Few pupils do not have the expectation of finishing high school. Only 1.8 per cent of the Freshmen and 0.8 per cent of all pupils indicated that they would not complete their high-school education. Only one Junior and one Senior do not expect to complete high school.

The percentages of pupils who intend to enter college are nearly equal in all four years. The percentages range from 54.4 for Freshmen to 57.1 for Seniors. About one in thirty pupils did not answer the question regarding going to college, and approximately one in thirty was undecided. Many qualified their answers by adding "if possible" or "if I get a job." A third of all pupils stated definitely that they were not going to college.

Not many pupils indicate that they will continue their education in other types of schools. Freshmen and Sophomores do not, apparently, consider going to business college or night school, but as pupils approach nearer the end of the four years of high school, more expect to take up work in these schools. The percentages of Seniors who expect to carry on their education in business colleges or in night schools are 3.0 and 4.0 respectively for each type of school. A greater percentage

36 Douglass and Wind, *op. cit.*, p. 377.

TABLE 42

NUMBERS AND PERCENTAGES OF PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS REPORTING DIFFERENT EDUCATIONAL PLANS

Educational Plans	Freshmen		Sophomores		Juniors		Seniors		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Not finish high school	43	1.8	15	0.8	1	0.1	1	0.1	60	0.8
Go to college	1,320	54.4	1,119	57.7	948	56.5	806	57.1	4,193	56.2
No answer about going to college	100	4.1	71	3.7	47	2.8	34	2.4	252	3.4
Undecided about going to college	175	7.2	132	6.8	105	6.3	97	6.9	509	6.8
Not going to college	833	34.3	618	31.9	579	34.5	475	33.6	2,505	33.6
Business college	24	1.0	31	1.6	54	3.2	43	3.0	152	2.0
Technical course	64	2.6	47	2.4	41	2.4	25	1.8	177	2.4
Night school	9	0.4	27	1.4	23	1.4	56	4.0	115	1.5
Other types of schools	9	0.4	14	0.7	15	0.9	11	0.8	49	0.7

of Freshmen than of Seniors plans to take up technical courses after graduation from high school, but the numbers are small.

As regards expectations for future educational pursuits in colleges and universities, the pupils of this study are somewhat more sanguine than those in certain other high schools, Catholic or public. The percentage of boys expecting to enter college from a group of Catholic high schools in Minnesota, investigated by Koos, was 45.6.[37] The schools were in both larger and smaller communities. The percentage of boys, following the general, academic, scientific, and commercial curriculums in a group of general high schools investigated in the Nation Survey of Secondary Education, who planned to enter colleges or universities was 51.4.[38]

The percentage of pupils in these twenty-one Catholic high schools who expect to enter college is larger than the percentage that actually does enter college. About 41 per cent of the graduates of June, 1936, requested that their credits be sent to colleges and universities in September, 1936. Very probably some others of the same group of graduates have entered college in 1937 or 1938, but the number would not, probably, raise the percentage more than a few points. In the Biennial Survey of schools for the period of 1932-34, the percentage of private school pupils who entered colleges or universities was reported as forty-six.[39]

OCCUPATIONAL CHOICES OF PUPILS

For tabulating the replies of pupils to questions concerning vocational plans, a list of seventy general and specific vocational callings was drawn up, and eighty-three others were added in the course of tallying the answers. The broad and some specific vocational plans are given in Table 43 for Freshmen, Sophomores, Juniors, and Seniors, and for all combined. The general classification follows that of Counts for the occupations of fathers.[40]

Pupils in all grades have to a rather surprising degree fixed their intention on some type of work, although it may be only an aspiration

37 Koos, *Private and Public Secondary Education*, p. 61.

38 Derived from Kefauver, Noll, and Drake, *The Horizontal Organization of Secondary Education*, p. 170.

39 Biennial Survey of Education in the United States: 1932-34. *Statistics of Private Elementary and Secondary Schools*, 1932-33., p. 8.

40 See p. 88.

TABLE 43
OCCUPATIONAL PLANS OF PUPILS

Occupational Plans	Freshmen		Sophomores		Juniors		Seniors		All	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
No plans	78	3.2	41	2.1	45	2.7	50	3.5	214	2.9
Undecided	110	4.5	62	2.1	59	3.5	55	3.9	286	3.8
No answer	186	7.7	206	10.6	162	9.6	120	8.5	674	9.0
Proprietors	31	1.3	43	2.2	39	2.3	28	2.0	141	1.9
Physicians	156	6.4	117	6.0	96	5.7	85	6.0	454	6.1
Engineers	378	15.5	304	15.7	254	15.1	223	15.8	1,159	15.5
Lawyers	106	4.4	111	5.7	101	6.0	78	5.5	396	5.3
Other professions	390	16.1	299	15.4	269	16.0	219	15.5	1,177	15.7
Managers	27	1.1	19	1.0	13	0.8	22	1.6	81	1.1
Commercial service	152	6.3	168	8.7	160	9.5	132	9.3	612	8.2
Clerical service	125	5.1	142	7.3	180	10.7	178	12.6	625	8.4
Building trades	43	1.8	26	1.3	26	1.5	19	1.3	114	1.5
Machine trades	147	6.1	109	5.6	81	4.8	66	4.7	403	5.4
Printing trades	26	1.1	12	0.6	16	1.0	10	0.7	64	0.9
Transportation and communication	32	1.3	29	1.5	23	1.4	17	1.2	101	1.4
Aviation	180	7.4	71	3.7	37	2.2	28	2.0	316	4.2
Miscellaneous trades	42	1.7	32	2.7	18	1.1	19	1.3	111	1.5
Public service	89	3.7	52	2.7	34	2.0	32	2.3	207	2.8
Agriculture	15	0.6	5	0.3	7	0.4	5	0.4	32	0.4
Forestry	15	0.6	14	0.7	18	1.1	10	0.7	57	0.8
Common labor	24	1.0	23	1.2	3	0.2	....	....	50	0.7
Professional sports	54	2.2	34	1.8	19	1.1	5	0.4	112	1.5
Others	22	0.9	21	1.1	19	1.1	11	0.8	73	1.0
Total	2,428	100.0	1,940	100.0	1,679	99.8	1,412	100.0	7,459	100.0

rather than fixed purpose. Only 15.7 per cent did not specify some particular kind of work, and of these, 2.9 per cent stated that they had no plans, 3.8 per cent mentioned that they were undecided, and 9.0 did not answer the question. The small percentage with no definite plans may have been confused by the way the questions regarding vocational plans were worded. The question, "What would you like to become?" brought out some answers from pupils who did not answer either of the other questions on vocational plans, but the number was small. These answers were tabulated only if none of the other questions pertaining to vocational choice was answered. The question did reveal that many pupils realized that they could not attain the position that they would like to occupy. In instances in which they answered both questions, "What are your plans for an occupation?" and "What would you like to become?" the choice for the second question was in almost all cases higher than the first.

More Freshmen than others had made some vocational choice, but the percentages of Sophomores, Juniors, and Seniors do not vary greatly from first-year boys. The percentage of pupils who definitely answered that they had no plans increases with the different high-school grades beginning with the Ninth. The percentages in proceeding from Freshmen to Seniors steadily decrease for the trades, common labor, and the two types of callings that seem to appeal to the imagination of younger pupils—aviation and professional sports. The percentages for all high-school grades remain fairly constant for the different types of professional service. For commercial and clerical callings the percentages increase for each succeeding year except the Senior year, in which there is a slight falling off in comparison with the Junior year. This may be due to the fact that some of the Seniors, having taken commercial work, feel that they have no interest in commercial or clerical types of employment.

Engineering was the favorite specific kind of work chosen by the greatest number of boys. This result corresponds with the findings of other studies on the vocational choices of high-school pupils. Beeson and Tope reported that engineering was first in rank of occupational choices of two thousand high-school boys from Grand Junction, Colorado;[41] Hurlock and Jansing found the same rank for 447 boys in differ-

41 M. F. Beeson and R. E. Tope, "A Study of Vocational Preferences of High School Students," *Vocational Guidance Magazine*, VII (December, 1928), 117.

ent socio-economic classes in Kentucky and New York;[42] Williamson and Darley showed that 19.4 per cent of Minnesota high-school Senior boys chose engineering as their preference for a career, a greater percentage than for any other kind of work;[43] and Johnson reported that 33.82 per cent of pupils from seventy-eight schools in the state of Washington selected technical engineering as their vocational choice.[44]

The professions and other callings of the higher occupational levels were chosen by greater numbers of pupils of this study than were callings on the lower economic brackets. The percentage of pupils making a choice of occupational pursuits on the higher socio-economic levels was 62.2 as compared with 21.1 per cent for the lower levels. The professions claimed 42.6 per cent of the choices. Some of the specific professions selected are given in Table 43. Other choices of professions not specifically mentioned in the table were: the priesthood and other religious callings, 281; journalism, 165; chemistry, 138; teaching, 77; art, 77; dentistry, 58; pharmacy, 57; and athletic coaching, 36. Other frequently-mentioned vocational positions were: business, 420; accountant or bookkeeper, 279; office position, 204; mechanic, 123; a trade, 86; and toolmaker, 56.

Boys in Catholic high schools are much like other high-school pupils in their occupational choices. The percentages of pupils in this study and in other similar investigations who have expressed a hope to enter certain vocational fields are given in Table 44. In each study the greatest percentage of those expressing a choice is for professional service. Business occupations rank second in this study and in that of Omaha high schools, while skilled labor holds second rank in the cases of Minnesota high-school pupils, of those in the general high schools investigated in the National Survey of Secondary Education, and of Washington high-school boys. The large percentages of Minnesota high-school Seniors and of boys of the state of Washington high schools

42 Elizabeth B. Hurlock and C. Jansing, "The Vocational Attitudes of Boys and Girls of High School Age," *Pedagogical Seminary and Journal of Genetic Psychology,* XLIV (March, 1934), 184.

43 E. G. Williamson and J. G. Darley, "Trends in the Occupational Choices of High School Seniors," *Journal of Applied Psychology,* XIX (August, 1935), 366-67.

44 Edward C. Johnson, "The Vocational Preferences of High School Students in Washington," *Washington Educational Journal,* XIII (April, 1934), 182.

TABLE 44

PERCENTAGES OF PUPILS MAKING OCCUPATIONAL CHOICES IN CERTAIN BROAD VOCATIONAL FIELDS

Schools	Professions	Business	Skilled Labor	Semi-skilled & Unskilled Labor	Others	No Answer
Twenty-one Catholic high schools, 1936-37 (7,459)	42.6	19.6	17.6	3.5	1.0	15.7
Omaha high schools, 1922 (3,432)*	61.0	29.0	10.0	.....	.....	.....
Minnesota high school Seniors, 1933 (5,041)†	54.3	18.9	25.2	1.6	.....	.....
Eleven general high schools, 1930 (2,084)‡	35.7	10.8	13.2	0.4	0.4	39.4
Seventy-eight Washington high schools, 1934 (4,376)§	49.5	5.8	32.8	2.7	9.2	.....

* I. N. Madsen, "The Contribution of Intelligence Tests to Educational Guidance in High School," *School Review*, XXX (November, 1922), 694.

† Adapted from Williamson and Darley, *op. cit.*, pp. 366-67.

‡ Adapted from Kefauver, Noll, and Drake, *The Horizontal Organization of Secondary Education*, p. 172.

§ Adapted from Edward C. Johnson, "The Vocational Preferences of High School Students in Washington," *op. cit.*, pp. 182-83.

choosing skilled labor are due to the fact that 12.3 per cent and 16.5 per cent of these boys, respectively, listed agriculture and forestry as their choice of occupation. Williamson and Darley in reporting the Minnesota investigation included these groups among those choosing "skilled trades and low-grade clerical work." The present writer included forestry and agriculture in the skilled group in the case of the Washington pupils. Only a small percentage of high-school pupils expect their future occupation to be unskilled or semi-skilled labor.

FAILURE IN SCHOOL WORK

Failure in the schools will probably exist as long as the system of working for credits or units prevails in school practice. But there is a trend toward a "no-failure program" in high schools such as exists in many elementary schools and junior high schools.[45] Weersing mentions that certain large school systems "frankly permit large numbers of pupils

45 "On Behalf of the No-Failure Program," *School Review*, XLVI (May, 1938), 331-33, quoting Frederick J. Weersing in *Sierra Educational News*.

to get through high school without attemping to make them conform to the usual requirements for promotion and graduation."[46] That is a point of view toward which some high schools seem to be leaning.

The other point of view, that pupils should measure up to certain standards as a basis for promotion, is ably presented in the following quotations. Bagley writes:

> Failure in school is unpleasant and the repetition of a grade is costly and often not very effective. On the other hand, the lack of a stimulus that will keep the learner to his task is a serious injustice both to him and to society which has a stake in his effective education. . . . We certainly stigmatize failure too much by implying that it is symptomatic of permanent weakness. . . .[47]

The late President Coffman, of the University of Minnesota, speaking not only for colleges but for secondary schools as well, says:

> Usually when failure is mentioned we become too sentimental and think too little about the social waste that will ensue if we continue to pamper and indulge the individual in his irresponsible practices. . . .
>
> When I reflect on the history of civilization and on the problem of present day society, it seems to me there was never a time when students should be held more rigorously to high standards and when assignments should call for a maximum of effort, never a time when students need more to be taught that there is no royal road nor easy way to learning, and that understanding can be acquired only by mastering systematic knowledge.[48]

Some superintendents of schools also take the attitude expressed in President Coffman's remarks. The whole plea of Tildsley, a former assistant superintendent of New York City Schools, in *The Mounting Waste of the American Secondary School* is for standards in education based on ability.[49] In his report, Superintendent Miller of the Saginaw, Michigan, schools affirms: "In seeking to avoid for its pupils the habit of failure, the schools tolerate the formation of the still worse habit

46 *Ibid.*, p. 332.

47 William C. Bagley, "Is Subject Matter Obsolete?" *Educational Administration and Supervision,* XXI (September, 1935), 411.

48 L. D. Coffman, "The Chairman's Address—A Special Plea for Education," *Educational Record,* XVII (July, 1936), 370-72.

49 John L. Tildsley, *The Mounting Waste of the American Secondary School,* The Inglis Lecture, 1936. Cambridge: Harvard University Press, 1936. Pp. 91.

of expecting success without due effort, and neglect to establish realistic standards which will be operative beyond school life."[50]

These quotations, however, must not be interpreted to mean that provision should not be made for pupils of different abilities. Rather they indicate that pupils should be held to an accomplishment in proportion to their ability.

The data presented in this section demonstrate that the teachers in the Catholic high schools of this study demand work which in their judgment is of a passing quality. The percentages of pupils failing do not, however, reveal whether or not different provisions are made for pupils with different abilities. In 1935-36, the year to which the data apply, only two schools, as far as the writer could determine, employed ability grouping in the Freshman and Sophomore years. In all the larger schools, grouping on the basis of subjects might have provided a rough type of provision in the last two years of high school for pupils of different interests, but not to a great extent for levels of ability as measured by marks earned in subjects.

The failure rate of pupils is so important from the point of view of pupil adjustment to the school and to the school offerings, in addition to being a reflection, to some extent, of intelligence, socio-economic status, and other factors, that the data on the amount of failure will be presented somewhat in detail.

The subjects pupils carried.—In Chapter III[51] were presented data which showed that in 1935-36 in the twenty-one high schools all Freshmen were required to take religion, English, and algebra; in seventeen schools they were required to take Latin; in six schools, general science; in nine schools, ancient or ancient-medieval history; in three schools, citizenship; in one school, health; and in eighteen schools, physical education. In twenty-one schools Sophomores were required to take religion and English; geometry, in nineteen; second-year Latin, in seventeen; medieval-modern, modern, or world history, in ten; United States history and civics, in two; and biology, in seven. The subjects for these two years, with the exception of physical education and, possibly, citizenship, general science, and biology, are academic subjects; and some,

50 "Keeping Abreast of the Times," *Phi Delta Kappan,* XX (February, 1938), 207.

51 Table 18, p. 41.

to be carried successfully under present conditions in school practice, require more than normal intelligence. It might be expected, therefore, that failures occurred in these Catholic high schools.

Promotion practice.—In the twenty-one high schools of this study only a very small group of pupils enters at the beginning of the second semester of the school year. Subjects that continue for two semesters, like English, elementary algebra, geometry, the foreign languages, history, bookkeeping, and shorthand, begin in September and continue for the entire school year. Others, such as economics, solid geometry, civics, commercial law, which are usually single-semester subjects, may follow some other single-semester subject. Promotion is by subjects.

In tabulating the data on the amount of failure, it was thought best to find the number of pupils failing in a whole-year subject for the whole year rather than for a single semester, as the practice in the different schools varied regarding pupils who failed for the semester in such subjects. In some schools pupils who failed in a subject for a semester repeated the semester's work in that subject regardless of whether they passed the second semester or not. In other schools, especially in such subjects as mathematics and foreign language, the whole-year average was taken as the basis for promotion, even though a pupil might have failed in the first semester, on the supposition that if a pupil grasped the later work in those subjects he probably understood the earlier parts. In some schools the mark "conditioned" was given for marks between sixty and seventy. (Seventy was the passing mark in twenty of the twenty-one schools.) Special examinations were given on specified days, and pupils might, after making up work and passing the examination, receive a passing mark for the marking period.

Numbers and percentages of pupils failing.—The numbers and percentages of pupils who failed in the different subjects during 1935-36 are given in Table 45. The failure rate was greatest in Freshman subjects. The percentages of Freshmen taking the different subjects and failing were: in religion, 2.8; in English, 7.3; in ancient history, 2.7; in ancient-medieval history, 8.9; in citizenshp, 8.8; in elementary algebra, 13.0; in first-year Latin, 15.5; and in general science, 4.7. General mathematics was introduced in one school at the beginning of the second semester for a group of Freshmen who had failed algebra the first semester. Five, or 16.7 per cent, of the thirty boys enrolled in the class failed the subject at the end of the semester.

TABLE 45
NUMBERS OF PUPILS ENROLLED IN AND THE NUMBERS AND PERCENTAGES FAILING IN THE DIFFERENT SUBJECTS

Subjects	Number Enrolled in Subjects	Number Failed	Percentage Failed
Religion I	2,444	69	2.8
Religion II	2,080	31	1.5
Religion III	1,754	61	3.5
Religion IV	932	12	1.3
Total Religion	7,210	173	2.4
English I	2,474	181	7.3
English II	2,109	127	6.0
English III	1,781	100	5.6
English IV	1,492	40	2.7
Journalism	21	0	0.0
Public speaking	757	0	0.0
Total English	8,634	448	5.2
World history	240	24	10.0
Ancient history	186	5	2.7
Ancient-medieval history	1,059	94	8.9
Medieval-modern history	431	24	5.6
Modern history	811	55	6.8
American history	1,648	49	3.0
Total history	4,375	251	5.7
Civics	937	23	2.5
Community civics	23	0	0.0
Citizenship	376	33	8.8
Vocational civics	43	3	7.0
Vocations	138	9	6.5
Economics	486	29	6.0
Sociology	818	19	2.3
Total other social studies	2,821	116	4.1
General mathematics	30	5	16.7
Algebra, elementary	2,527	328	13.0
Plane geometry	2,133	279	13.1
Advanced algebra	872	51	5.8
Solid geometry	488	22	4.5
Trigonometry	397	23	5.8
College algebra	8	1	12.5
Total mathematics	6,455	709	11.0
Latin I	2,478	385	15.5
Latin II	1,956	210	10.7
Latin III	558	31	5.6
Latin IV	363	6	1.7
Total Latin	5,355	632	11.8

TABLE 45—(CONTINUED)

Subjects	Number Enrolled in Subjects	Number Failed	Percentage Failed
Greek I	94	4	4.3
Greek II	97	3	3.1
Total Greek	191	7	3.7
French I	415	55	13.3
French II	315	20	6.3
French III	11	0	0.0
German I	420	10	2.4
German II	365	9	2.5
German III	18	0	0.0
Spanish I	183	18	9.8
Spanish II	86	6	7.0
Polish I	70	0	0.0
Polish II	55	0	0.0
Polish III	41	0	0.0
Polish IV	39	0	0.0
Total modern foreign language	2,018	118	5.8
General science	1,032	48	4.7
Biology	773	108	14.0
Chemistry	1,150	100	8.7
Physics	1,013	68	6.7
Physiology	114	0	0.0
Physiography	17	1	5.9
Total science	4,099	325	7.9
Typewriting	715	8	1.1
Shorthand	390	14	3.6
Bookkeeping	442	19	4.3
Commercial arithmetic	410	32	7.8
Commercial law	387	27	7.0
Commercial geography	199	9	4.5
Business training	57	14	24.6
Business English	143	2	1.4
Total commercial	2,743	125	4.6
Mechanical drawing	408	15	3.7
Manual training	15	0	0.0
Total industrial arts	423	15	3.5
Physical training	4,252	10	0.2

The percentage of Sophomores failing was almost as great as that of the Freshmen. In religion the percentage failing was 1.5; in English, 6.0; in world history, 10.0; in medieval-modern history, 5.6; in modern history, taught in six schools in the second year, 6.8; in geometry, 13.1; in second-year Latin, 10.7; and in biology, 14.0. Business training was offered in one school to a group of Sophomores who either had not taken Latin during the first year because their intelligence quotients were too low, or who had failed in first-year Latin. Almost a fourth failed in business training.

The percentages of failure among the Juniors were somewhat lower in most subjects than for Freshmen and Sophomores. In religion, however, the greatest percentage of failure was in the Junior year. In third-year English 5.6 per cent failed; in advanced algebra, 5.8; in third-year Latin, 5.6; in first-year French, 13.3; in German I, 2.4; in Spanish I, 9.8; chemistry, a Junior subject in eleven schools, 8.7; in shorthand, 3.6; and in commercial arithmetic, 7.8.

The failure rate in the Senior year in all subjects was much lower than in any of the preceding years. The percentages failing in religion, English IV, American history, civics, and sociology, usually Senior sub-

TABLE 46

PERCENTAGES OF SUBJECT-FAILURES IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS AND THE PERCENTAGES OF SEMESTER UNITS FAILED IN THIRTY-FOUR SECONDARY SCHOOLS

Subject-Groups	21 Catholic High Schools	34 Secondary Schools*
Religion	2.4	.....
English	5.2	6.4
Social studies	5.1	5.1
Mathematics	11.0	9.0
Ancient languages	11.5	7.9
Modern foreign languages	5.8	6.9
Science	7.9	5.7
Commercial subjects	4.6	7.0
Shops	.....	3.4
Mechanical drawing	3.7	4.4
Physical education	0.2	4.2

* Unpublished data collected by Professor William C. Reavis of the University of Chicago.

jects, were respectively 1.3, 2.7, 3.0, 2.5, and 2.3. Physics, taught almost as frequently in the Junior year as in the Senior, had a failure percentage of 6.7; trigonometry, 5.8; business law, 7.0; and bookkeeping, 4.3.

Percentages failing in subject-fields.—The two subject-groups in which most of the failures occurred were mathematics and the ancient languages. This is shown in Table 46 in which are given the percentages of failure in the different subject-fields in the Catholic high schools and the percentage of semester units failed by pupils in a group of thirty-four other secondary schools. These two subject-groups also had the greatest percentages of failure in the thirty-four schools. The failure rates in both groups of schools indicate that the practices with regard to failure were probably much the same.

Number of subjects in which pupils failed.—Algebra and Latin in the Freshman year and geometry and Latin in the Sophomore year proved stumbling blocks to many pupils, with the result that many failed in these subjects. The numbers and percentages of pupils failing in one or more subjects are given in Table 47. Of the 1,585 pupils who experienced failure during 1935-36, 51.5 per cent failed in one subject; 25.8 per cent, in two subjects; 12.8 per cent, in three; 6.6 per cent, in four; and 3.3 per cent failed in all their subjects, including religion. The 816 boys who failed in only one subject comprised 10.2 per cent of the entire enrolment of the twenty-one schools. In all, 1,585 pupils, or 19.8 per cent of the entire enrolment, experienced failure in one or more subjects.

TABLE 47

NUMBERS AND PERCENTAGES OF PUPILS FAILING IN ONE OR MORE SUBJECTS

Number of Subjects	Number Who Failed	Percentage of Those Who Failed	Percentage of Entire Enrolment
One subject	816	51.5	10.2
Two subjects	409	25.8	5.1
Three subjects	203	12.8	2.5
Four subjects	104	6.6	1.3
Five subjects	53	3.3	0.7
Total	1,585	100.0	19.8

The percentages of pupils who failed in one subject do not vary to any great extent among Freshmen, Sophomores, Juniors, and Seniors as is shown in Table 48. The data are for seventeen of the twenty-one schools: in a few of the first schools visited various grade-divisions were not separated in the tabulation of the numbers that failed in one or more subjects. The percentages failing in two or more subjects were much the same for Freshmen and Sophomores, but they decreased rather sharply for Juniors and still more so for Seniors. The table illustrates that the greatest percentages of failures occurred among Freshmen and Sophomores.

TABLE 48

NUMBERS AND PERCENTAGES OF FRESHMEN, SOPHOMORES, JUNIORS, AND SENIORS IN SEVENTEEN CATHOLIC HIGH SCHOOLS FOR BOYS FAILING IN ONE OR MORE SUBJECTS

Number of Subjects	Freshmen (2,019)		Sophomores (1,742)		Juniors (1,469)		Seniors (1,365)	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
One	196	9.7	190	10.9	158	10.8	118	8.6
Two	130	6.4	103	5.9	63	4.3	32	2.3
Three	55	2.7	60	3.4	38	2.6	10	0.7
More than three	54	2.7	46	2.6	22	1.5	3	0.2
Total	435	21.5	399	22.8	281	19.2	163	11.8

Range of percentage of failure.— The school marks presented in the foregoing sections do not give an indication as to whether too few or too many pupils failed in the different schools. In Table 46, in which the numbers and percentages of pupils failing in the various subject-groups are given, the percentages of pupils failing are not excessively high, in the opinion of the writer, with the possible exception of those in mathematics and foreign languages. But the percentages of pupils failing in different subjects vary considerably. The ranges in the percentages failing in various subjects in which large numbers of pupils in the twenty-one Catholic high schools are enrolled are given in Table 49. The data show the leniency or the strictness of individual teachers rather than school policy concerning marks. In some cases, however, the percentages of pupils failing do reflect school practice. Of the twenty subjects listed in the table, eight of the highest failing percentages are from one school. In that school the median intelligence quotients of all

TABLE 49

RANGE IN THE PERCENTAGES OF PUPILS FAILING DIFFERENT SUBJECTS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS

Subjects	Lowest Percentage Failing	Highest Percentage Failing
Religion I	0.0	9.1
Religion II	0.0	7.9
Religion III	0.0	15.1
Religion IV	0.0	7.3
English I	0.0	24.2
English II	0.0	16.9
English III	0.0	32.2
English IV	0.0	12.8
Ancient-medieval history	0.0	20.8
Modern history	1.3	12.3
American history	0.0	11.5
Civics	0.0	12.1
Elementary algebra	3.0	35.5
Plane geometry	0.9	30.1
Latin I	1.1	35.6
Latin II	0.0	22.9
General science	0.0	8.5
Biology	0.0	27.6
Chemistry	0.0	30.0
Physics	0.0	25.6

Freshmen, Sophomores, Juniors, and Seniors were 104.1, 107.1, 105.9, and 106.0, respectively. The pupils were on a par with other groups from the point of view of mental ability.

That the percentages of pupils failing the twenty subjects listed in Table 49 give a suggestion of school policy concerning strictness in marking is further indicated by the fact that the highest percentages of failure were confined to eight schools. By inspection of school marks and of the numbers of pupils who failed, it appeared that of the twenty-one schools, seven were lenient in marking; six were strict; and eight pursued a middle course with a tendency towards strictness in most cases. In some schools, almost all pupils passed in all subjects; in others, from a fourth to a third failed in certain subjects.

Relationship between mental ability and failure.—The relationship

between the mental ability of pupils and the percentages failing in algebra, first-year Latin, and geometry is shown in Table 50. Only those Freshmen and Sophomores who filled out both the intelligence test and the questionnaire and who were taking the subjects considered are represented in the table. In general, pupils from all levels of intelligence, with the exception of the highest step intervals, failed, but the lower the level of intelligence, the greater the percentages of failure in the three subjects. There is no clear-cut step interval, with the exception of the highest ones, which separates those who passed from those who failed. Approximately four-fifths of those who failed, however, had intelligence quotients below 105.

Not four-fifths of those with intelligence quotients below 105 failed, however. Of the 673 boys taking algebra, 301 had intelligence quotients below 105. Of these with intelligence quotients below that mark, only 66, or slightly more than a fifth (21.9 per cent), failed algebra. Of 623 boys enrolled in first-year Latin, 280 had intelligence quotients below 105, and of these, 82, or 29.3 per cent, failed Latin. Of 554 boys carrying geometry, 243 had intelligence quotients below 105. Fifty-four of the 243, or 22.2 per cent, failed geometry. Thus, about four in five pupils with intelligence quotients below 105 succeeded in passing algebra, first-year Latin, and geometry.

Relationship between factors and average marks.—The relationship between socio-economic status, intelligence, and the country of birth of fathers, and the average marks of pupils is shown in Table 51. The percentages of pupils earning A's or B's for the different socio-economic groups are: commercial-clerical, 46.7; managerial, 43.0; proprietary, 41.8; professional, 38.8; manual, 38.6; and unknown, 31.6. There is no pronounced positive relationship between higher socio-economic levels and high marks.

The relationship between high intelligence and high marks is evident. The percentages in each of the four quarters receiving average marks of A or B are: fourth quarter, 72.3; third quarter, 48.8; second quarter, 28.3; and first quarter, 13.8. Fifty-one pupils, or 8.4 per cent of all with intelligence quotients in the lowest quarter, received an average mark in their subjects below the passing mark of 70.

There is no apparent relationship between country of birth of fathers and average marks, but the pupils whose fathers were born in the United States received slightly higher marks than did pupils whose fathers were born in other countries.

TABLE 50

RELATIONSHIP BETWEEN THE INTELLIGENCE OF PUPILS AND THE PERCENTAGES FAILING IN ALGEBRA, FIRST-YEAR LATIN, OR GEOMETRY

Step Intervals	Algebra			Latin			Geometry		
	Number Taking Algebra	Number Failing Algebra	Percentage	Number Taking Latin	Number Failing Latin	Percentage	Number Taking Geometry	Number Failing Geometry	Percentage
134.5-139.5	----	----	----	----	----	----	3	----	----
129.5-134.5	3	----	----	3	----	----	5	----	----
124.5-129.5	16	----	----	15	----	----	10	1	10.0
119.5-124.5	34	1	2.9	31	1	3.2	41	1	2.4
114.5-119.5	83	1	1.2	78	3	3.8	53	4	7.5
109.5-114.5	109	6	5.5	104	4	3.8	93	1	1.1
104.5-109.5	127	8	6.3	112	12	10.7	106	6	5.7
99.5-104.5	126	16	12.7	120	23	19.2	98	11	11.2
94.5- 99.5	79	23	29.1	69	21	30.4	68	15	22.1
89.5- 94.5	50	11	22.0	47	20	42.6	46	14	30.4
84.5- 89.5	30	10	33.3	30	13	43.3	21	9	42.9
79.5- 84.5	13	4	30.8	11	2	18.2	6	3	50.0
74.5- 79.5	3	2	66.7	3	3	100.0	3	2	66.7
69.5- 74.5	----	----	----	----	----	----	1	----	----
Total	673	82	12.2	623	102	16.4	554	67	12.1

TABLE 51

RELATIONSHIP BETWEEN THE FACTORS OF SOCIO-ECONOMIC STATUS, INTELLIGENCE, AND COUNTRY OF BIRTH OF FATHERS AND ACHIEVEMENT

Factors	A		B		C		D		F	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Socio-economic status:										
Proprietary	24	7.1	117	34.7	113	33.5	77	22.8	6	1.8
Professional	12	9.9	35	28.9	46	38.0	25	20.7	3	2.5
Managerial	38	10.1	124	32.9	123	32.6	82	21.8	10	2.7
Commercial-Clerical	42	10.0	154	36.7	129	30.7	83	19.8	12	2.9
Manual	83	8.1	313	30.5	337	32.8	253	24.7	40	3.9
Unknown	9	6.6	34	25.0	48	35.3	37	27.2	8	5.9
*Intelligence:**										
Fourth quarter	140	23.9	284	48.4	124	21.1	38	6.5	1	0.2
Third quarter	47	7.3	267	41.5	224	34.8	97	15.1	9	1.4
Second quarter	16	2.8	147	25.5	232	40.2	164	28.4	18	3.1
First quarter	5	0.8	79	13.0	216	35.5	258	42.4	51	8.4
Country of birth of fathers:										
United States	161	9.0	573	32.1	574	32.1	418	23.4	60	3.4
Other countries	47	7.4	204	32.3	222	35.2	139	22.0	19	3.0

* The median and the first and third quartile marks used in deriving the different quarters are those given in Table 40, p. 95. Of 2,572 pupils who took the intelligence test, only 2,417 filled out questionnaires. The number represented in this table is 2,417. The number of pupils in each quarter is not twenty-five per cent of 2,417, but rather the number who filled out questionnaires and whose intelligence quotients are in the first, second, third, or fourth quarter, based on 2,572 pupils.

PUPILS WHO WITHDREW

Data given in preceding pages of this study indicate elimination from school among pupils of certain ethnic origins and among those whose fathers' occupations are on the lower socio-economic levels. In this section data are presented to show the numbers of pupils withdrawing, at what grade-levels, among what success-groups as measured by school marks, the reasons for withdrawal, and the number who transferred to other schools.

The data presented in the following tables are for pupils who withdrew from school during 1935-36 or who did not return in September, 1936. In all schools except two the number of those who dropped out during the school year was not heavy; in the other nineteen schools the greatest number of those who discontinued completed the school year before withdrawing.

Numbers and percentages of pupils withdrawing.—The numbers and percentages of discontinued pupils in the four high school grades are given in Table 52. Almost half (43.4 per cent) of those who discontinued were in Grade IX. Approximately a third (32.8 per cent) were Sophomores, and 19.5 per cent were Juniors. The Seniors who discontinued, in almost all cases, had not earned enough credits for graduation. The table also shows the percentage of pupils in each grade who were eliminated. More than one in every six Freshmen (17.8 per cent of all Freshmen) withdrew; more than one in every seven Sophomores (15.7 per cent) dropped out; and among the Juniors, more than one in ten discontinued.

TABLE 52

NUMBERS AND PERCENTAGES OF PUPILS WHO DISCONTINUED DURING 1935-1936, INCLUDING THOSE WHO DID NOT RETURN IN SEPTEMBER, 1936, EXCLUSIVE OF GRADUATES.

Pupils	Number Discontinued	Percentage of Discontinued Pupils	Entire Enrolment	Percentage of Entire Enrolment Discontinued
Freshmen	436	43.4	2,456	17.8
Sophomores	329	32.8	2,099	15.7
Juniors	196	19.5	1,792	10.9
Seniors	43	4.3	1,678	2.6
Total	1,004	100.0	8,025	12.5

The percentages of pupils leaving school were greatest in the first two years in which the curriculum requirements were the most rigid and in which the school offerings were almost strictly academic.

Number of withdrawing pupils who failed.—The percentages of discontinued pupils who failed in school work are usually greater than for those who withdrew but did not fail. Buckner reported that 64.1 per cent of the pupils who left high school during or at the end of the first year failed in some subjects.[52] Bilhorn found for a large Chicago high school that over a period of eight years 61.8 per cent of the boys withdrawing had experienced failure in their high-school work.[53] In the data of the present study, the percentage of discontinued boys who did not fail in any subject, as shown in Table 53, is greater than for eliminated pupils who had failed. More than half, or 52.2 per cent of the pupils who discontinued, did not experience failure.

TABLE 53

NUMBERS AND PERCENTAGES OF DISCONTINUED PUPILS WHO FAILED IN DIFFERENT NUMBERS OF SUBJECTS.

Number of Subjects	Number of Discontinued Pupils Who Failed	Percentage of Discontinued Pupils
No subjects	524	52.2
One subject	162	16.1
Two subjects	126	12.5
Three subjects	94	9.4
Four subjects	59	5.9
Five subjects	39	3.9
Total	1,004	100.0
Total percentage failing	.....	47.8

That low achievement as measured by teachers' marks has some relation to a pupil's withdrawal is evident from a consideration of the data presented in Table 54, in which are given the average marks of samples of graduates and discontinued pupils from six schools over a period of fifteen years. The marks of the graduates follow the outline

52 Mabel A. Buckner, "A Study of Pupil Elimination in the New Haven High School," *School Review*, XXXIX (September, 1931), 535.

53 John Chester Bilhorn, "Withdrawals from High School in an Urban Community," p. 48. Unpublished Master's thesis, Department of Education, University of Chicago, 1936.

TABLE 54

AVERAGE MARKS OF GRADUATES AND DISCONTINUED PUPILS IN SIX HIGH SCHOOLS OVER A PERIOD OF FIFTEEN YEARS

Average Marks	Graduates		Discontinued Pupils	
	Number	Percentage	Number	Percentage
A (93-100)	115	6.3	31	1.7
B (85-92)	498	27.3	116	6.3
C (78-84)	744	40.7	335	18.3
D (70-77)	469	25.7	757	41.3
F (0-69)	.....	.....	439	24.0
No Marks	.....	.....	154	8.4
Total	1,826	100.0	1,832	100.0

of the normal curve except in the lowest fifth, which represents failure. In the case of the discontinued pupils, however, the heaviest distribution of marks is in the D, or 70-77 per cent, interval; and the second greatest number is in the F, or failure, interval. The table does not warrant the conclusion that the pupils in the F interval failed in all their high-school subjects but that their averages for all subjects were below the passing mark. Neither does the table indicate that all pupils in the other intervals passed in all the subjects they carried. But the table does show unmistakably that those who dropped out were usually in the low achievement group.

The group of discontinued pupils who received no marks withdrew from school before completing a full semester and, therefore, received no marks for the semester.

Reasons for withdrawing from school.—Failure had some influence on elimination from school in the Catholic high schools of this study, but there were also other factors that caused elimination. In six schools reasons for pupils' withdrawing from school were entered on the permanent record cards. In some cases the reasons listed were those on the part of the school requesting the boy to withdraw. In most instances, however, the reasons were the ones that the pupil or his parents gave when he discontinued. The frequency of the different reasons for 170 pupils who discontinued during 1935-36 is presented in Table 55. The reasons given by pupils in some instances may be superficial, but the financial condition of the family appears to be the cause of withdrawal in a great many cases. Seventy-nine explanations given for discontinu-

TABLE 55
REASONS FOR LEAVING HIGH SCHOOL FOR 170 BOYS IN SIX HIGH SCHOOLS

Reasons	Frequency
Finances	52
Go to work	27
Failure in school work	26
Wrong attitude	21
Moved	13
Entered seminary	9
No interest in school	5
Went to boarding school	5
Bad health	5
Wanted other subjects	2
Needed at home	2
Had no reason	2
Wanted easier curriculum	1
Total	170

ing have to do with straitened financial circumstances. In fifty-two cases the pupils could not meet the tuition charges, and in twenty-seven others they had to go to work to help support the family. "Failure in school work" ranks third, and "wrong attitude" is fourth. Habitual truants and those who were requested to leave come under the general heading, "wrong attitudes." Fifteen were from one school. Pupils' moving to different parts of the city or out of the city was another reason for withdrawal. A considerable group of pupils in the Catholic high schools enter seminaries or the novitiates of religious orders to study for the priesthood or the religious life. It would seem, therefore, that reasons other than those connected with school policies, failure, or dissatisfaction with the school offerings were frequently operative in causing the withdrawal of pupils from school.

Elimination from school, however, like failure, often indicates a lack of adjustment between the pupil and the school and the pupil and the school-offerings. In Minneapolis, 37.6 per cent of discontinued pupils listed "school difficulties" as the reason for their withdrawal, and 4.8 per cent gave as the reason that they "wanted to learn a trade."[54] Failure in schoolwork is another reason for leaving frequently given by discontinued pupils. Buckner, in calling attention to the fact that fail-

54 "Post-school Adjustment of Drop-Outs and Graduates from the Minneapolis Public Schools," *Articulation of the School and the Community*, p. 193. Ninth Yearbook of the Department of Superintendence of the N. E A. Washington: National Education Association, 1931.

ure may not be the cause of a pupil's withdrawing from school, shows that the correlation between the number of pupils failing and the number leaving is high.[55] Hewes found that "lack of interest in school work" was given most frequently by another group of boys for leaving school.[56]

Number of transfers.—In the preceding table a pupil's transfer to some other school was not listed as a reason for his withdrawing from school because the other reasons given were more fundamental. A considerable group of pupils who dropped out of the Catholic high schools transferred to the public high schools and some of them went to other Catholic high schools. The data regarding transfer to other Catholic high schools and to public high schools, and the number of public high-school pupils who entered Catholic high schools are shown in Table 56. A boy who dropped out of the Catholic high school during his first year and transferred to another school is listed as a Freshman. One who completed the Freshman year in a public high school and entered a Catholic high school the following September is listed as a Sophomore. The same kind of interpretation applies to pupils reported as Sophomores, Juniors, or Seniors.

TABLE 56

NUMBERS AND PERCENTAGES OF DISCONTINUED PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS WHO TRANSFERRED TO OTHER CATHOLIC HIGH SCHOOLS AND TO PUBLIC HIGH SCHOOLS DURING 1935-1936 AND IN SEPTEMBER, 1936; AND THE NUMBER OF PUBLIC HIGH SCHOOL PUPILS WHO TRANSFERRED TO CATHOLIC HIGH SCHOOLS IN SEPTEMBER, 1936

Pupils	Transfers to Other Catholic High Schools		Transfers to Public High Schools		Transfers from Public to Catholic High Schools
	Number	Percentage of Drop-outs, Each Grade	Number	Percentage of Drop-outs, Each Grade	Number
Freshmen	51	11.7	214	49.1	20
Sophomores	38	11.6	129	39.2	82
Juniors	13	6.6	48	24.5	45
Seniors	1	2.3	1	2.3	18
Total	103	10.3	392	39.0	165

55 Buckner, *op. cit.*, p. 534.

56 Amy Hewes, "Why Pupils Leave School," *School Review*, XLIII (April, 1935), 290.

Almost half, 49.1 per cent, of the Freshmen who discontinued from the Catholic high schools transferred to public high schools and 11.7 per cent entered other Catholic high schools. Of the Sophomores who discontinued, 39.2 per cent entered public schools and 11.6 per cent went to other Catholic high schools. A fourth of the Juniors eliminated from the Catholic high schools went to the public high schools, and 6.6 per cent transferred to other Catholic schools. Of the total number of pupils who discontinued the Catholic high schools, one in ten went to another Catholic high school and four in ten entered public high schools. For every two or three who entered the public schools, one public high-school pupil entered the Catholic high schools. The ratio between those who withdrew to enter public schools and public school pupils who entered the Catholic high schools is 2.37.

Elimination and age.—Of the 436 Freshmen who discontinued during 1935-36, 251, or 57.6 per cent, were under sixteen years of age. As an age under sixteen is normal for pupils completing the first year of high school, only 42.4 per cent of the Freshmen who withdrew were retarded pupils. Brooks gives evidence to show that pupils who enter high school at the age of fifteen have a fifty-fifty chance to graduate, and those who enter at sixteen have about two chances in five to complete the high school course.[57] Retardation or its correlate, over-ageness —which the Catholic high school cannot control, in the case of Freshmen, at least—is a factor in elimination. However, there were retarded pupils in the Catholic high schools of this study, and it is questionable whether the purely academic program of the first two years appealed to their interests or lay within their capabilities.

GRADUATES

Percentage of graduates retarded.—As almost a fifth of the pupils who were in the Catholic high schools of this study in 1935-36 failed in one or more subjects during that year,[58] it might be expected that a considerable percentage of Seniors would have required more than four years to be graduated, provided the percentage of failures was about the same in other years. But, as shown in Table 57, only a fraction over 10 per cent required more than four years to complete the high school course. In some schools, to the writer's knowledge, Seniors who needed

57 Fowler D. Brooks, *The Psychology of Adolescence*, p. 554. Boston: Houghton Mifflin Co., 1929.

58 Table 47, p. 113.

an extra credit or unit to meet the graduation requirements of fifteen or sixteen units were allowed to carry an extra subject. How many of them may have taken advantage of this opportunity is unknown to the writer. Approximately 90 per cent completed their high school course in four years. Only six of 1,602 graduates completed their high school work in less time than four years.

The fact that only 10 per cent needed more than four years to be graduated is another indication, in view of the larger percentage of pupils failing in earlier years, that the pupils who failed were, to a considerable extent, eliminated in earlier years.

TABLE 57

NUMBER OF SEMESTERS OF ATTENDANCE BEFORE GRADUATION FOR THE CLASS OF 1936

Number of Semesters	Number of Graduates	Percentage of Graduates
7 semesters	3	0.2
7 semesters and 1 summer session	3	0.2
8 semesters	1,433	89.4
8 semesters and 1 summer session	86	5.4
8 semesters and 2 summer sessions	13	0.8
9 semesters	40	2.5
10 semesters	21	1.3
11 semesters	3	0.2
Total	1,602	100.0

The percentage of graduates whose credits were sent to colleges or universities.—Earlier in this chapter[59] data were presented which showed that 56.2 per cent of the pupils who answered the questionnaire planned to go to college. In Table 58 it is shown that 40.8 per cent of the graduates of the twenty-one Catholic high schools in June, 1936, had transcripts of their credits sent to colleges and universities. In the other twenty-six high schools from which information on this topic was received, 42.2 per cent of the graduates were reported to have entered colleges or universities in September, 1936. Very probably some of the 1936 class stayed out of school a year to work and entered college in 1937. Taking this into consideration, probably not more than 45 per

59 Table 42, p. 101.

TABLE 58

TOTAL NUMBER OF GRADUATES IN 1936 IN FORTY-SEVEN CATHOLIC HIGH SCHOOLS FOR BOYS AND THE NUMBER AND PERCENTAGE WHOSE CREDITS WERE SENT TO COLLEGES AND UNIVERSITIES

	21 Schools	26 Schools	47 Schools
Number of graduates	1,602	1,624	3,226
Number of graduates whose credits were sent to colleges and universities	654	686	1,340
Percentage of graduates whose credits were sent to colleges and universities	40.8	42.2	41.5

cent of the graduates in the twenty-one high schools continued their studies in collegiate institutions. On the other hand, more than half the graduates did not enter college.

The percentages of graduates whose transcripts of credits were sent to colleges or universities in 1936 varied considerably from one school to another. The range in the percentages was from 22.6 to 68.0.

SUMMARY OF THE CHAPTER

Number of pupils represented.—Almost nine-tenths, or 7,459, of the pupils in the twenty-one Catholic high schools of this study answered a student questionnaire, some of the data from which concerning socio-economic status of fathers, nationality and country of birth of fathers, educational and vocational plans of pupils, and their success in school, are contained in this chapter.

Nationality and country of birth of parents.—(1) Pupils of Irish and German extraction compose more than half of the student-body of the twenty-one Catholic high schools for boys. Three in ten are Irish, two in ten are German, about two in ten are "American," and about one in ten is Polish. The rank order of other nationalities is: English, Italian, French, Czechoslovakian, Lithuanian, Hungarian, Scotch, Dutch, Austrian, and Canadian.

(2) Almost three-fourths of the fathers of boys in the Catholic high schools of this study were born in the United States, approximately one in ten, in Ireland, and slightly more than one in twenty, in Poland. The total percentage born in English-speaking countries is 82.9. The percentages of pupils whose fathers were born in Ireland, Germany, Poland, and Lithuania increase, in general, from the Freshman to the

Senior year, and those of pupils whose fathers were born in the United States and Italy decrease.

(3) The data on nationality and country of birth of mothers correspond to those for fathers, but slightly more than three-fourths of the mothers were born in the United States.

(4) Both the parents of 17.5 per cent of all boys were born in foreign countries, but only about 10 per cent were born in countries in which English is not the language of the people.

Socio-economic status.—Fathers of pupils are found in all occupational groups, but not many are engaged in agriculture. Almost a fourth are engaged in managerial and commercial service. The percentages of fathers who are in proprietary and professional service are considerably lower than for fathers of pupils in public schools. Almost half of the fathers of pupils in twenty-one Catholic high schools are in the lower socio-economic brackets, while slightly more than a third of the fathers of public school pupils are in the lower socio-economic groups.

Elimination of pupils is greatest in the Catholic high schools among boys coming from homes on the lower socio-economic levels, and the amount of elimination is greatest among the Freshmen. It decreases from the Freshman to the Senior year.

Intelligence of pupils.—The intelligence quotients of almost a third of the pupils in the Catholic high schools of this study are presented in Table 40. The median intelligence quotients of the Freshmen, Sophomores, Juniors, and Seniors, respectively, are 105.7, 105.7, 106.0, and 106.7. Taken as groups, the pupils of all four high-school grades are very much alike from the point of view of intelligence. Approximately three-fourths of the boys of this study have intelligence quotients above 100. Seven per cent have intelligence quotients below 90.

Educational plans.—The percentages of Freshmen, Sophomores, Juniors, and Seniors expecting to enter college are practically constant. About six in ten boys in each grade plan to enter college, and more than three in ten definitely do not intend to go to college. Not many plan to enter types of schools other than colleges after high-school graduation.

Pupil vocational plans.—Approximately five-sixths of the pupils in this study indicated some vocational preference. The choices cover a wide range, but more than two-fifths are in professional service; one-

fifth, in business, commercial, and clerical service; and nearly a fifth, in skilled trades. Engineering ranks first among the choices of Freshmen, Sophomores, Juniors, and Seniors. The choices of other professional work do not vary considerably for any of the four groups of pupils. The percentages of pupils choosing commercial and clerical work increase with the later high-school years, and the percentages decrease, in general, for those who prefer skilled, semi-skilled, and unskilled labor.

Failure in school work.—The greatest percentages of failure occurred in the Freshman and Sophomore years, and the subjects in which most pupils failed in Grades IX and X were mathematics and Latin. Approximately one pupil in eight failed in elementary algebra and plane geometry, more than one in seven failed in the first year of Latin, and one in ten failed in the second year of that subject. The rank-order of amount of failure in those subjects in which enrolment was heavy was: first-year Latin, biology, first-year French, plane geometry, algebra, second-year Latin, world history, and ancient-medieval history. The subject-groups with the greatest percentage of failure were: ancient languages, 11.5 per cent; mathematics, 11.0 per cent; and science, 7.9 per cent.

More than half of those who failed did so in only one subject, and slightly more than a fourth failed in two subjects. Almost one in every five pupils failed in one or more subjects.

The range of the percentage of failures in the different schools was wide, with the greatest range, 34.5 per cent, in first-year Latin. In elementary algebra, third-year English, and chemistry the ranges were almost as great as the range for first-year Latin.

Pupils from all levels of mental ability failed in algebra, geometry, and first-year Latin, but about four in five of those who failed had intelligence quotients below 105.

Achievement as measured by marks had no pronounced relationship to socio-economic status and country of birth of fathers, but it was closely related to mental ability. The approximate proportions of pupils in each of the four quarters of intelligence receiving average marks of A or B were: three in four in the fourth quarter; two in four in the third quarter; one in four in the second quarter; and one in seven in the first quarter.

Elimination.—(1) In 1935-36, one of every eight pupils withdrew from the Catholic high schools of this study. More than two-fifths of the discontinued pupils were Freshmen, and more than three-fourths were Freshmen and Sophomores.

(2) Slightly more than half of the pupils withdrawing did not fail in any subject. As twenty of the schools charged tuition, inability to pay tuition was the cause of withdrawal in the cases of many pupils. A considerable group of pupils in these Catholic high schools withdrew to enter seminaries or novitiates to study for the priesthood or the religious life.

(3) A sample of average marks of graduates and discontinued pupils of six schools over a period of fifteen years indicates unmistakably, however, that the pupils who failed and those whose average marks were in the 70-77 interval on the percentage basis withdrew from school in the greatest numbers.

(4) Approximately half the Freshmen and two-fifths of the Sophomores who withdrew from school transferred to public schools, and about one-tenth of each group transferred to another Catholic school.

(5) Of the Freshmen who withdrew, more than two-fifths were sixteen years of age or over, which indicates that they were retarded somewhere in their school career.

Length of time to graduate. — Approximately nine-tenths of the graduates completed their high-school work in the normal time — eight semesters. Only six of 1,602 graduates completed their work in less than four years.

Number of graduates who entered college. — The transcripts of slightly more than two-fifths of the graduates in June, 1936, were sent to colleges and universities. The range in the percentages of graduates, who presumably entered college in Septembr, 1936, was from 22.6 in one school to 68.0 in another.

The pupils in the schools of this study are heterogeneous from the points of view of ethnic origins, socio-economic status, intelligence, educational and vocational plans, and school achievement. A considerable group failed in their scholastic work and many withdrew from school. The data presented in this chapter show positive relationship between

intelligence and achievement. Is there any relationship between the socio-economic status of pupils and the curriculums they follow? Between their educational and vocational plans and the curriculums in which they are enrolled? Between their intelligence and the subjects they carry and the curriculums they follow? Between their intelligence and their interests? Answers to these questions are given in later chapters.

CHAPTER VI

INTERESTS AND ACTIVITIES OF CATHOLIC HIGH-SCHOOL PUPILS

THE PURPOSE OF THE CHAPTER

One of the purposes of the educational program of the secondary school is to encourage pupils to carry on desirable activities and to use leisure time wisely.[1] In evaluating the offering, consideration must be given not only to the subjects and the kinds of curriculums offered, but also to pupils' activities and interests — outcomes of the educational program. No clear-cut division can be made between those activities which the school initiates and directs and those which develop spontaneously from the interests of pupils. Some of these activities closely associated with school life and for which the school has some responsibility will be considered in the present chapter. They are: subjects liked best and liked least, desired subjects, religious practices, reading interests, and amusements. Other activities that are an important part of the modern school educational program but which are still called in many circles "extracurricular" will not be considered. A question was asked in the inquiry form concerning the school organizations and clubs of which pupils were members, but after the answers were tabulated it became evident that pupils did not mention their being members of athletic teams, bands, or glee clubs. It was concluded that the results would not give a reliable view of this phase of the curriculum in these Catholic high schools.

Some of the activities and interests influence the school and its curriculum in that units of work are often built on the vital experiences of pupils. In other cases, the school influence carries into the activity or interest. It is this second phase in particular that is examined in this chapter.

SUBJECT INTERESTS

Subjects pupils like best and like least.—The interests of pupils with regard to the subjects of the school offerings are of some value to admin-

1 Francis T. Spaulding, *High School and Life*, p. 33. The Regents' Inquiry into the Character and Cost of Public Education in the State of New York. New York: McGraw-Hill Book Co., 1938.

istrators in organizing the program of studies. This is especially true of subjects pupils like least. While the lack of interest or positive dislike of pupils for certain subjects should, perhaps, have no weight in determining the required subjects in some fields of study generally regarded as appropriate for general education, such as religion, English, social studies, science, and mathematics, nevertheless, with regard to other fields, the lack of interest might well be given some consideration in determining the required subjects.

Certain subjects that were mentioned frequently by pupils as being liked best or liked least are listed in Table 59. The percentages were derived by taking as bases the numbers of pupils who answered the questionnaire and who were enrolled in the subjects during 1936-37. For those who did not answer the question or reported they liked all subjects, the base was taken as the number who answered the questionnaire.

TABLE 59

NUMBER OF BOYS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS TAKING CERTAIN SUBJECTS DURING 1936-1937 AND THE NUMBERS AND PERCENTAGES MENTIONING THE SUBJECTS THAT THEY LIKED BEST AND LIKED LEAST

Subjects	Number Taking Subject	Number Liking Subject Best	Percentage	Number Liking Subject Least	Percentage
Religion	6,922	384	5.5	48	0.7
English	8,018	1,228	15.3	926	11.5
History	4,065	812	20.0	707	17.4
Civics	1,038	170	16.4	106	10.2
Economics	472	43	9.1	27	5.7
Sociology	717	19	2.6	19	2.6
Mathematics	5,997	389	6.5	161	2.7
Elementary algebra	2,469	746	30.2	668	27.1
Geometry	1,963	398	20.3	654	33.3
Trigonometry	341	26	7.6	43	12.6
Latin	5,047	700	13.9	2,019	40.0
General science	1,162	436	37.5	142	12.2
Biology	780	210	26.9	115	14.7
Chemistry	1,012	335	33.1	183	18.1
Physics	912	244	26.8	140	15.4
Typewriting	849	148	17.4	13	1.5
Shorthand	436	56	12.8	57	13.1
Bookkeeping	464	137	29.5	39	8.4
Mechanical drawing	361	152	42.1	6	1.7
Shop	122	35	28.7	1	0.8
No answer	.....	281	3.8	564	7.6
Like all	.....	105	1.4	.....	.....

The number of pupils liking certain subjects best was greater than the number liking those subjects least in all cases except for sociology, geometry, trigonometry, Latin, and shorthand. In sociology, the numbers were equal. The least-liked subjects were geometry and Latin, the percentages of pupils mentioning them as least-liked subjects being 33.3 and 40.0 respectively. The subjects liked best, in proportion to the numbers taking them, were mechanical drawing, general science, and chemistry. The percentages were, respectively, 42.1, 37.5, and 33.1.

The table illustrates the great variety in the subject-interests of pupils. The subject that drew the greatest response, according to percentages, was elementary algebra, 30.2 per cent liking it best and 27.1 per cent liking it least. Every subject mentioned in the table was liked best by some pupils and least by others.

Desired subjects.—The subjects that the school does not offer but which the pupils would like to take are of value to school administrators in deciding on additions to the curriculum. The pupils of this study mentioned a total of 103 different subjects which they would like to take, but only those subjects presented in Table 60 were mentioned by thirty or more pupils in schools in which they were not offered. For the most part, the subjects which pupils expressed a preference for were in line with their vocational plans, which fact shows the pupil's desire for more training in his chosen field.

Only in cases of the languages, commercial subjects, industrial arts, and art were the numbers in some schools large enough to warrant adding these desired subjects to the curriculum. Except in three schools, industrial-arts subjects were in heavy demand in every school in which they were not offered. More than a sixth of the pupils expressed a desire for general shop courses, and a considerable group of others asked for specific industrial-arts work, such as mechanical drawing, aviation, electricity, engineering, mechanics, printing, and "technical" courses.

A rather large number of pupils expressed themselves as satisfied with the school offerings, and almost a third of the total number did not answer the question on desired subjects.

The number of schools in which pupils mentioned different desired courses does not correspond to the number not offering these subjects, as in many instances pupils desired "more" units in a subject. Thus,

some boys wanted more mathematics, more English, etc. Pupils from seventeen different schools expressed a desire for Spanish.

TABLE 60

NUMBER OF PUPILS EXPRESSING THE DESIRE TO TAKE CERTAIN SUBJECTS NOT OFFERED IN THEIR RESPECTIVE SCHOOLS, 1936-1937

Subjects	Number of Pupils	Number of Schools
French	72	10
German	74	9
Spanish	125	17
General science	38	7
Biology	123	14
Commerce	85	6
Typewriting	479	11
Shorthand	155	12
Bookkeeping	90	10
Mechanical drawing	182	15
Shop	1,235	21
Aviation	68	10
Electricity	36	7
Engineering	43	7
Mechanics	63	4
Printing	40	10
Technical course	112	3
Art	151	18
Music	47	9
Journalism	60	17
Public speaking	49	14
Satisfied	511	21
No answer	2,293	21

Data on the average number of pupils per school desiring a subject might be misleading, and, therefore, are not included. In one school, for example, 107 boys expressed the desire for a technical course. Five others from two schools expressed the same wish. The average number of pupils for the three schools is approximately thirty-seven, but this fact does not warrant the inference that a technical course should be introduced into the three schools. However, in some schools certain subjects are in great enough demand to warrant introducing such subjects into the curriculums of those schools.

Desired subjects in relation to certain factors. — The relationship between socio-economic status, intelligence, and country of birth of fathers and desired subjects is shown in Table 61. The subjects included under "others" are almost entirely academic subjects.

In the various classifications under socio-economic status, intelligence, and country of birth of fathers, the percentages of pupils desiring certain subjects are not strikingly different. More than a fifth of the pupils from each socio-economic group desired industrial arts, the percentages ranging from 21.5 for the professional group to 31.1 for the "manual" group. The percentage of pupils from the "manual" bracket desiring subjects listed under "others" is 14.1 while that of pupils whose fathers are in the professions is 21.5.

TABLE 61

RELATIONSHIP BETWEEN THE FACTORS OF SOCIO-ECONOMIC STATUS, INTELLIGENCE, AND COUNTRY OF BIRTH OF FATHERS AND DESIRED SUBJECTS

Factors	Industrial Arts		Commercial Subjects		Others		None	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Socio-economic status:								
Proprietary	90	26.7	44	13.1	60	17.8	143	42.4
Professional	26	21.5	18	14.9	26	21.5	51	42.1
Managerial	95	25.2	44	11.7	79	21.0	159	42.2
Commercial-Clerical	114	27.1	45	10.7	86	20.5	175	41.7
Manual	319	31.1	144	14.0	145	14.1	418	40.7
Unknown	30	22.1	14	10.3	26	19.1	66	48.5
*Intelligence:**								
Fourth quarter	136	23.2	70	11.9	140	23.9	241	41.1
Third quarter	184	28.6	88	13.7	96	14.9	276	42.9
Second quarter	169	29.3	74	12.8	89	15.4	245	42.5
First quarter	185	30.4	77	12.6	97	15.9	250	41.1
Country of birth of fathers:								
United States	510	28.6	212	11.9	322	18.0	742	41.5
Other countries	164	26.0	97	15.4	100	15.8	270	42.8

* See note under Table 51, p. 118.

Proportionately fewer pupils with intelligence quotients in the fourth quarter desired industrial arts and commercial subjects than did pupils with intelligence quotients in the other three quarters. On the other hand, proportionately more pupils of high mentality wanted to take subjects listed under "others."

The pupils whose fathers were born in foreign countries desired

commercial subjects in slightly greater percentages than did children of native-born fathers. Greater proportions of pupils whose fathers were born in the United States desired practical arts and subjects under "others" than was the case for children of foreign-born fathers.

More than 40 per cent of pupils in each classification under socio-economic status, intelligence, and country of birth of fathers did not express themselves on the question of desired subjects.

RELIGIOUS ACTIVITIES

According to the law and the mind of the Church, Catholics should, if possible, be educated in Catholic schools, so that they may be taught their religion and be under a religious influence, which should permeate school life.[2] The purpose is to have them know and live their Faith. Moreover, Catholics who have arrived at the age of reason are under other serious obligations, such as: (1) to attend Mass on Sundays and six holydays of the year, and (2) to receive the sacraments of penance and the Eucharist at least once a year. In the parochial elementary schools children usually perform these duties as a group. That is, there is a special Mass on Sundays which children in the elementary schools attend, and usually on certain Sundays they are urged to receive the sacraments. In the Catholic high schools of this study, however, boys come from many parishes and there are no school regulations regarding attendance at services or reception of the sacraments, although there is always encouragement. Two of the schools, however, have chapels large enough to accommodate the entire student body, and attendance at Mass on school days is part of the regular school exercises.

The extent to which pupils in high school live up to their religious obligations is in one way a measure of the effectiveness with which the school performs its religious function.

Fulfillment of religious obligations.—The practices of pupils with regard to two of their principal religious duties are shown in Table 62. More than 40 per cent of the pupils attend Mass oftener than is required — that is, more than weekly — and more than one in ten go daily. Only sixteen, or 0.2 per cent, do not live up to their religious obligations. The religious affiliations of pupils who did not answer the question are unknown, as the questionnaire did not call for this in-

2 Pope Pius XI, *Christian Education of Youth*, pp. 30-31. Washington: National Catholic Welfare Conference, 1930.

formation. Fifteen pupils filled in that they were non-Catholics. Whether or not any others are included among those who gave no answer is unknown.

Almost half the pupils receive the sacraments weekly or oftener and approximately an additional half receive them bi-weekly or monthly. "Occasionally" in the table referring to Communion means that pupils approached the sacraments a few times a year.

TABLE 62

NUMBERS AND PERCENTAGES OF PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS WHO ATTEND MASS AND RECEIVE COMMUNION AT STATED INTERVALS

	Number	Percentage
Attend Mass:		
Daily	765	10.3
Twice a week	1,545	20.7
Several times a week	882	11.8
Sundays and holydays	4,151	55.7*
Occasionally	16	0.2
No answer	85	1.1
Non-Catholics	15	0.2
Total	7,459	100.0
Receive Communion:		
Daily	232	3.1
Twice a week	498	6.7
Several times a week	311	4.2
Weekly	2,580	34.6
Twice a month	1,993	26.7
Monthly	1,506	20.2
Occasionally	93	1.2
No answer	246	3.3
Total	7,459	100.0

* Total attending Mass weekly or oftener is 7,343, or 98.5 per cent.

RECREATIONAL ACTIVITIES

Until such time as the school can provide for the recreational life of pupils, which means that the school day will then be more than five or six hours long, perhaps the most the school can hope to accomplish is to begin with the present recreational interests of pupils and attempt

gradually to induce pupils to substitute more beneficial activities for less desirable ones.

General recreational activities.—In asking pupils to enumerate their chief amusements and recreations, the writer did not submit a list for pupils to check, but simply asked the question and left space for pupils to reply. The numbers and percentages of activities are presented in broad classifications in Table 63. The pupils answered the questionnaire during the months of April and May, and, therefore, the seasonal activities probably influenced replies. Had the questionnaire been submitted during the winter months, the percentages for crafts, sedentary activities, and social activities might have been larger.

TABLE 63

NUMBERS AND PERCENTAGES OF PLAY AND OTHER RECREATIONAL ACTIVITIES ENGAGED IN BY BOYS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS

Activities	Number of Times Mentioned	Percentage of Activities
Team games	5,595	42.0
Individual and dual athletic activities	2,555	19.2
Crafts	326	2.4
Sedentary activities	3,365	25.3
Outdoor recreational activities	572	4.3
Artistic expression activities	219	1.6
Social activities	690	5.2
Total	13,322	100.0

More than 60 per cent of the chief recreational activities of boys are athletic in nature, and of these, more than 40 per cent are group and team games. The sedentary activities, including attendance at motion picture shows and reading, ran second among favorite recreations. Slightly more than a fourth of the pupils mentioned these particular activities. Only small groups of pupils listed as their favorite pastimes the crafts, such as wood-carving, model building, and amateur radio; outdoor pastimes, like hiking, fishing, and camping; artistic expression activities, such as singing and playing musical instruments; and social activities.

Rank-order of specific recreational activities.—The rank-order for specific activities among the boys in twenty-one Catholic high schools,

among boys in four high schools and a junior college investigated by Edgren, and among boys sixteen, seventeen, and eighteen years old in the investigation by Lehman and Witty are given in Table 64. The seasonal activities probably influence the rank of amusements among all three groups of boys. The findings of Edgren correspond rather closely to those in the present study, but in Lehman and Witty's investigation the outdoor sports do not figure so prominently. Participation rather than watching sports is the common practice of boys in the present study and in that of Edgren. Attendance at motion picture shows is a common amusement in all groups. Dancing, an expression of social life, ranks eighth in the group of Catholic schools. This may be due to the fact that several of the schools have afternoon dances in the school building to which girls from the schools in the cities are invited.

Steiner writes that "the movement by the American public toward more adequate recreational facilities is one of the significant social trends of recent times."[3] He goes on to say that the products of modern invention — motion pictures, radio, and the automobile — have brought about the most revolutionary changes in recreational activities.[4] This modern tendency is reflected to some extent in the recreations and amusements of the pupils in the present study. Driving or riding in an automobile was mentioned by only ninety-four pupils as one of their chief amusements. Listening to the radio, although holding a rather low rank among pastimes, is indulged in by almost all pupils, as will be shown further on. Attending motion picture shows as a form of leisure-time activity ranks second among the favorite amusements of pupils of this study.

Amusements in relation to certain factors. — The relationship between such factors as socio-economic status, intelligence, and country of birth of fathers and the amusements or recreation of pupils is not marked, as is shown in Table 65.

Many pupils mentioned more than one amusement. In tabulating the answers, only the first recreation mentioned was counted. Crafts, outdoor recreational activities, artistic expression activities, social activities, and listening to the radio are grouped in the table under "others."

3 J. F. Steiner, "Recreation and Leisure Time Activities," *Recent Social Trends in the United States*, p. 912. Copyright 1933 by McGraw-Hill Book Co., Inc.

4 *Ibid.*, p. 913.

TABLE 64

RANK IN FREQUENCY OF RECREATIONAL ACTIVITIES MOST COMMONLY ENGAGED IN BY BOYS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS, BY BOYS IN FOUR HIGH SCHOOLS AND A JUNIOR COLLEGE (AFTER EDGREN), AND BY BOYS SIXTEEN, SEVENTEEN, AND EIGHTEEN YEARS OLD (AFTER LEHMAN AND WITTY)

Rank	Activities			
	21 Catholic High Schools	Frequency of Mention	Edgren* (Boys)	Lehman and Witty† (Boys)
1	Baseball	2167	Basketball	Reading newspaper
2	Movies, shows	2102	Swimming	Looking at Sunday "funny paper"
3	Sports	1839	Baseball	Riding in automobile
4	Swimming	837	Tennis	Going to movies
5	Football	827	Movies	Watching athletic sports
6	Basketball	714	Softball	Just playing "catch"
7	Reading	693	Reading books	Chewing gum
8	Dancing	485	Radio	Reading jokes and funny sayings
9	Tennis	316	Auto-riding	Reading short stories
10	Fishing, hunting	316	Football	Driving an automobile
11	Listening to radio	271	Social dancing	"Hard" ball
12	Golf	244	Golf	Reading books
13	Skating	235	Table tennis	Listening to victrola
14	Bowling	188	Track and field	Listening to radio
15	Music (by self)	182	Hiking	Football
16	Bicycling	179	Reading newspapers	Riding a bicycle
17	Ping pong	174	Conversation	Whistling
18	Model building	163	Ice skating	Teasing somebody
19	Billiards, pool	140	Singing	Having "dates"
20	Hiking, camping	135	.....	Writing letters

* Harry Daniel Edgren, "The Interests and Participation of Boys and Girls in Out-of-School Recreation Activities," p. 68. Unpublished Master's thesis, Department of Education, University of Chicago, 1935.

† Adapted from *The Psychology of Play Activities*, p. 52, by Lehman and Witty. Copyright 1927 by A. S. Barnes and Company, Inc.

The percentages representing pupils whose fathers are in professional work are smaller for sports and larger for "others" and "none" than is the case for the other socio-economic groups, but the differences are not great. For reading, the percentage representing children of "manual" workers is larger than for pupils from other economic levels.

A greater percentage of pupils with intelligence quotients in the lowest quarter mention sports as their chief recreation than do pupils in the other three quarters. A smaller percentage of pupils in the lowest quarter mention reading than do pupils in the three higher quarters.

Pupils whose fathers were born in foreign countries give sports as

TABLE 65

RELATIONSHIP BETWEEN THE FACTORS OF SOCIO-ECONOMIC STATUS, INTELLIGENCE, AND COUNTRY OF BIRTH OF FATHERS AND AMUSEMENTS

Factors	Sports		Shows		Reading		Others		None	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Socio-economic status:										
Proprietary	166	49.3	55	16.3	12	3.6	86	25.5	18	5.3
Professional	58	47.9	18	14.9	4	3.3	31	25.6	10	8.3
Managerial	205	54.4	73	19.4	7	1.9	78	20.7	14	3.7
Commercial-Clerical	226	53.8	61	14.5	17	4.0	106	25.2	10	2.4
Manual	533	51.9	183	17.8	57	5.6	222	21.6	31	3.0
Unknown	81	59.6	17	12.5	4	2.9	25	18.4	9	6.6
*Intelligence:**										
Fourth quarter	297	50.6	100	17.0	33	5.6	135	23.0	22	3.7
Third quarter	323	50.2	113	17.5	38	5.9	144	22.4	26	4.0
Second quarter	298	51.6	96	16.6	20	3.5	133	23.1	30	5.2
First quarter	351	57.6	98	16.1	10	1.6	136	22.3	14	2.3
Country of birth of fathers:										
United States	917	51.3	316	17.7	73	4.1	414	23.2	66	3.7
Other countries	352	55.8	91	14.4	28	4.4	134	21.2	26	4.1

* See note under Table 51, p. 118.

their chief recreation in a greater proportion than do pupils whose fathers were born in the United States.

RADIO PROGRAMS

Only 271 boys in the Catholic high schools mentioned that listening to the radio was their chief amusement or recreation.[5] This is no indication, however, that boys do not listen to the radio: it merely denotes that other recreations are preferred to it. Only 111 boys did not answer the question regarding the radio programs they listen to most often; twenty-one answered the question by the word "none," which might mean that they had no favorite program or that they listened to none; and four boys mentioned that they had no radio in the home. The large number giving the names of favorite programs, an average of more than two programs for each boy, indicates that pupils spend considerable time at the radio.

Types of radio programs.—The number of times the different types of programs were mentioned, the percentage that each type is of the entire number mentioned, the rank of programs, and the rank of preferred programs among boys in eleven Illinois high schools are given in Table 66. It is apparent from a casual inspection of the table that boys listen to the radio for entertainment rather than for instruction.

For pupils in the twenty-one Catholic high schools, half (50.1 per cent) the programs mentioned were variety programs in which comedy predominated, and almost a fourth (24.1 per cent) were programs of drama and story. Modern music holds third rank, 7.7 per cent of the programs mentioned being what might be termed light music. Listening to news broadcasts ranks fourth, and symphony concerts, in which operas are included, ranks fifth. Probably the fact that pupils filled out the questionnaire in April and May had an influence on the low rank of broadcasts of athletic and sporting events. During those months pupils often are not at home during the hours when baseball games are on the air. In October and November, during football season, probably a greater number of pupils would have mentioned athletic broadcasts among their favorite programs.

It should not be concluded from the table that pupils of the Catholic high schools do not listen to talks on religious, political, and scien-

5 Table 64, p. 140.

TABLE 66

NUMBERS AND PERCENTAGES OF TYPES OF RADIO PROGRAMS LISTENED TO MOST OFTEN BY PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS AND THE RANK OF TYPE OF PROGRAM FOR BOYS IN THIS STUDY AND FOR BOYS IN ELEVEN ILLINOIS HIGH SCHOOLS.

Types of Programs	Frequency of Mention	Per-cent-age	Rank	
			21 Catholic High Schools	11 Illinois High Schools*
Variety programs	9,078	50.1	1	2
Drama, stories	4,380	24.1	2	8
Modern music	1,397	7.7	3	4.5
World news	992	5.5	4	3
Symphony concerts	596	3.3	5	7
Athletic and sporting events	466	2.6	6	1
Amateur hours	401	2.2	7.5	.....
Miscellaneous	401	2.2	7.5	.....
Band music	321	1.8	9	6
Religious topics	85	0.5	10	9
Political talks	1	.....	11	10
Talks on scientific topics	.....	.....	.....	4.5
Total	18,118	100.0		

* Adapted from Harold H. Punke, "Leisure-Time Attitudes and Activities of High-School Students," *School and Society*, XLIII (June 27, 1936), 886.

tific topics, as the pupils were asked to mention only the programs they listened to most often.

The rank of preferred programs in Punke's study shows that boys in eleven Illinois high schools use the radio for entertainment also. Athletic and sporting events hold first rank among preferred programs, and variety programs are second.

Rank of specific programs.—The specific programs mentioned most frequently illustrate again that boys in the high schools of this study listen to the radio principally for entertainment. The numbers of pupils mentioning the different programs in April and May, 1937, and the rank of the various programs are given in Table 67. With the exception of the "March of Time," which ranks thirteenth, and "News," which ranks seventeenth, the programs boys most frequently listen to are entertainment programs. Broadcasts for purposes of educational and cultural improvement, while not neglected, do not rank high. Boake Carter's program was mentioned by 124 pupils; "Cavalcade of America," by forty-five; and the "Catholic Hour," by twenty-eight. The

programs listened to most frequently are, for the most part, ones in which advertising appeals to adults.

TABLE 67

THE RANK OF PROGRAMS AND THE NUMBERS OF PUPILS WHO MENTIONED THEM IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS, 1936-1937

Program	Number	Rank
Jack Benny	3,269	1
Gang Busters	2,094	2
Fred Allen	2,021	3
Lux Radio Theater	756	4
Eddie Cantor	669	5
Your Hit Parade	622	6
Jack Oakie	483	7
Sports	466	8
Bing Crosby	408	9
Amateur hours	401	10
Fibber McGee and Molly	377	11
Burns and Allen	350	12
March of Time	324	13
Orchestra and dance music	321	14
Lum and Abner	302	10
Amos and Andy	296	16
News	244	17
Joe Penner	236	18
Comedy	216	19
Ripley	215	20

The chief use made of the radio by the American public, like pupils in the high schools of this study, is for recreational purposes. Steiner writes that "the public turns to the radio for its dance music, humorous dialogues, bed-time stories, light opera, and vivid portrayal of baseball and football games, prize fights, and other contests important in the world of sports. Its successful provision of entertainment of this kind has made possible the spectacular growth of radio during the past decade."[6]

Radio broadcasts for entertainment serve a valuable purpose in American life, but much of the good that the radio could accomplish is neglected because the broadcasts are largely commercially controlled, and people, or at least, pupils, do not turn in large numbers to programs of educational and cultural value. Tyler says that 98 per cent of the

6 J. F. Steiner, *Americans at Play*, p. 121. Copyright 1933 by McGraw-Hill Book Co., Inc.

pupils in junior and senior high schools in Oakland, California, are exposed to radios in their homes for an average of two hours and twenty-two minutes each school day, and that the tastes of pupils are low, the most popular programs being "pure hokum and slapstick."[7] The programs boys listened to are much the same type as those reported in the present study, seven of the first eight choices of programs being those in which humor was dispensed.[8]

Types of radio programs in relation to certain factors.—The relationship between socio-economic status, intelligence, and country of birth of fathers and the types of radio programs listened to most often is presented in Table 68. The types of programs included under "others" are news, symphony concerts, sports, talks, and miscellaneous programs.

Pupils whose fathers are engaged in professional, managerial, and commercial-clerical service list variety programs in greater percentages than do children whose fathers are proprietors or "manual" workers. The children of professional workers listen to stories less and to modern music more, proportionately, than do children in other economic groups. Pupils whose fathers are engaged in "manual" pursuits listen to stories in greater percentages than do children of other socio-economic groups.

From the point of view of intelligence, a greater percentage of pupils with intelligence quotients in the fourth quarter mention variety programs than is the case for pupils in the other three quarters. On the other hand, the percentage of pupils with intelligence quotients in the fourth quarter is not so large for stories and modern music as are the percentages in the other three quarters.

Country of birth of fathers has little influence on the type of program pupils listen to most often.

READING INTERESTS

"Training for recreational and aesthetic participation" or preparing pupils for a beneficial use of leisure time is an aim of secondary education in which modern authorities generally concur.[9] The American people turn largely to commercial forms of recreation for entertain-

7 I. Keith Tyler, "The Listening Habits of Oakland (California) Pupils," *English Journal* (college ed.), XXV (March, 1936), 206-7.

8 *Ibid.*, p. 212.

9 Koos, *The American Secondary School*, p. 154.

TABLE 68

RELATIONSHIP BETWEEN THE FACTORS OF SOCIO-ECONOMIC STATUS, INTELLIGENCE, AND COUNTRY OF BIRTH OF FATHERS AND TYPES OF RADIO PROGRAMS LISTENED TO MOST OFTEN

Factors	Variety Programs		Stories		Modern Music		Others		None	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Socio-economic status:										
Proprietary	133	39.5	87	25.8	49	14.5	58	17.2	10	3.0
Professional	61	50.4	18	14.9	19	15.7	18	14.9	5	4.1
Managerial	166	44.0	94	24.9	40	10.6	68	18.0	9	2.4
Commercial-Clerical	196	46.7	111	26.4	44	10.5	59	14.0	10	2.4
Manual	409	39.9	317	30.9	112	10.9	169	16.5	19	1.9
Unknown	53	39.0	32	23.5	22	16.2	23	16.9	6	4.4
*Intelligence:**										
Fourth quarter	294	50.1	126	21.5	58	9.9	93	15.8	16	2.7
Third quarter	255	39.6	181	28.1	89	13.8	103	16.0	16	2.5
Second quarter	236	40.9	168	29.1	74	12.8	87	15.1	12	2.1
First quarter	233	38.3	184	30.2	65	10.7	112	18.4	15	2.5
Country of birth of fathers:										
United States	766	42.9	498	27.9	216	12.1	263	14.7	43	2.4
Other countries	252	39.9	161	25.5	70	11.1	132	20.9	16	2.5

* See note under Table 51, p. 118.

ment,[10] and while such forms of recreation are often satisfying, the conclusion is forced upon one that the American people are not very successful in entertaining themselves. Moreover, much of the commercialized entertainment is not uplifting, although pure legitimate entertainment as such, or recreation for sheer enjoyment without thought of by-products, is, in the opinion of the writer, sometimes desirable. Nevertheless, leisure-time pursuits which one follows independently, as distinguished from commercial forms of recreation, are often more satisfying and beneficial to an individual. After one acquires appreciation for it, reading is a type of recreation which enables one to spend much of his leisure time enjoyably and profitably. The benefits of reading are so numerous and far-reaching[11] that the common schools have an obligation to endeavor to foster in their pupils a love of reading.

Various studies on pupils' reading point out that quantity and quality are not always satisfactory. Byrns and Henmon reported that the amount of voluntary reading high-school pupils do is small in quantity and mediocre in quality.[12] Cain and Brown also concluded that the amount of voluntary reading high-school pupils do is small in quantity but more than half of the books had some literary merit.[13] Curran found that one-fourth of the books pupils from one high school read voluntarily were on the approved list of the National Council of Teachers of English.[14] Gray concluded after considering various studies on the subject that the amount of free reading increases rapidly during the middle and upper grades and is relatively high during the high school years.[15] Monto inferred that slightly more than 90 per cent of

10 J. F. Steiner, "Recreation and Leisure Time Activities," *Recent Social Trends in the United States*, pp. 939-44.

11 *The Teaching of Reading: A Second Report*, p. 12. The Thirty-Sixth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1937.

12 Ruth Byrns and V. A. C. Henmon, "Reading Interests of High School Seniors," *English Journal*, XXV (January, 1936), 61.

13 William R. Cain and Francis J. Brown, "An Evaluation of the Outside Reading Interests of a Group of Senior High School Pupils," *Journal of Educational Sociology*, V (March, 1932), 442.

14 Helen Lucile Curran, "An Analytical Study of the Free Reading of Pupils of Aledo High School," p. 46. Unpublished Master's thesis, Department of Education, University of Chicago, 1931.

15 William S. Gray, "Children's Interests in Reading," *Summary of Investigations Relating to Reading*, p. 159. Supplementary Educational Monographs, No. 28. Chicago: Department of Education, University of Chicago, 1925.

pupils in junior, senior, and vocational high schools are interested in reading.[16]

Although much is to be desired in the quality of the reading done by high school pupils, the fact that most pupils do read is an important beginning in improving taste. Pupils must first acquire an interest in reading, as a rule, before much can be done in improving the quality of their reading. One must begin with their interests, whether these interests lie in the field of romance, adventure, or western stories, and build on that foundation rather than begin trying to teach appreciation with the classics.[17] Perhaps it is to be expected that most of the reading of high school pupils will be fiction and even light fiction. But under skilful guidance, tastes do improve. Some investigators report so slight an improvement on the part of pupils in choosing the better kinds of reading as to question the value of the school's efforts in improving appreciation.[18] Center and Persons found an increase in the types of reading other than fiction as pupils progress through the years of high school.[19] Elder and Carpenter,[20] LaBrant,[21] and Peterson[22] also discovered the same kind of improvement in the quality of reading through the high-school years. It may be concluded, therefore, that pupils in high schools do read and that each succeeding year shows some improvement in taste.

Types of books read.—The evidence on reading from the Catholic high schools of this study, given in Table 69, points in the same general

16 Wilhelmina S. Monto, "An Analysis of Reading Interests of Junior and Senior High School Students," p. 74. Unpublished Master's thesis, Department of Education, University of Chicago, 1928.

17 Morrison, *op. cit.*, p. 326.

18 Byrns and Henmon, *op.cit.*, pp. 61-64. Cain and Brown, *op. cit.*, p. 442.

19 Stella S. Center and Gladys L. Persons, "The Leisure Reading of New York City High-School Students," *The English Journal,* XXV (November, 1936), 720.

20 Vera Elder and H. S. Carpenter, "Reading Interests of High School Children," *Journal of Educational Research,* XIX (April, 1929), 276-82.

21 L. L. LaBrant, *Evaluation of the Free Reading in Grades 10, 11, and 12 for the Class of 1935 of the Ohio State University School,* p. 17. Ohio State University Studies, Contributions to Education No. 2. Columbus: Ohio State University Press, 1936.

22 Anna Peterson, "Leisure Reading of High School Pupils," *Education,* LIV (January, 1934), 296-300.

direction as do the findings of the other studies that have been referred to. Pupils do read and there is gradual improvement in taste, as shown by the increases in the percentages of different types of books read, with the exception of light fiction, by pupils in each succeeding year of high school. Pupils were not asked what books they had read voluntarily, but what books they had read recently. An average of almost two books was mentioned by each boy, but 85.6 per cent of the books read by Freshmen were fiction and 66.1 per cent of those read by Seniors belonged to the same classification.

Fiction books are divided into three groups, following Carnovsky's classification.[23] The "standard authors" group are books by such writers as Dickens, Hardy, Conrad, etc.; under "modern good" are included the works of such authors as Cather, Buck, Sinclair Lewis, Margaret Mitchell, etc.; "modern light" comprise mystery, detective, western, and love stories.[24] Titles that were included in *Books for Home Reading for High Schools*[25] were placed in the first and second categories, and other books, unless they were of exceptional quality, were placed under the third group.

Perhaps the greater number of works of standard authors were required reading. But the fact that the percentages of books under the classifications of "standard authors" and "modern good" increase from year to year and that "modern light" decreases is noteworthy. For Freshmen 58.6 per cent of the books are classed as light fiction, but only 32.1 per cent of those read by Seniors are of this type. While this increase for better fiction and decrease for the light type may be due, in part, to the fact that Freshmen, as a rule, read more than do the other three groups of pupils, a certain amount of the increase from year to year is probably due to more reading of a better type.

The classification for books other than fiction is that followed by Foster.[26] The trend toward a better type of reading with the advance

23 Leon Carnovsky, "Community Studies in Reading: II, Hinsdale, A Suburb of Chicago," *The Library Quarterly*, V (January, 1935), p. 17.

24 *Ibid.*

25 Stella S. Center and Max J. Herzberg, co-chairmen, *Books for Home Reading for High Schools*, Prepared for The National Council of Teachers of English by Its Committee on Recreational Reading. Chicago: The National Council of Teachers of English, 1937. Pp. 118.

26 Jeannette Howard Foster, "An Experiment in Classifying Fiction Based on the Characteristics of Its Readers." Unpublished Doctor's dissertation, Graduate Library School, University of Chicago, 1935. Pp. v+196.

TABLE 69

NUMBERS AND PERCENTAGES OF PUPILS REPORTING HAVING READ CERTAIN TYPES OF BOOKS

Types of Books	Freshmen		Sophomores		Juniors		Seniors		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Fiction:										
Standard authors	538	12.4	449	12.9	541	18.5	336	13.2	1,864	14.0
Modern good	633	14.6	585	16.8	509	17.4	529	20.8	2,256	16.9
Modern light	2,538	58.6	1,913	54.8	1,204	41.1	817	32.1	6,472	48.6
Other types:										
School textbooks	13	0.3	2	0.1	4	0.1	1	0.0	20	0.2
Biography	158	3.6	125	3.6	189	6.5	269	10.6	741	5.6
Travel, exploration, true adventure	130	3.0	93	2.7	105	3.6	105	4.1	433	3.3
Science and mathematics	39	0.9	26	0.7	25	0.9	41	1.6	131	1.0
Modern social problems	14	0.3	46	1.3	63	2.2	64	2.5	187	1.4
Psychology and philosophy	7	0.2	7	0.2	12	0.4	22	0.9	48	0.4
Vocational and educational method	2	0.0	1	0.0	11	0.4	7	0.3	21	0.2
History	31	0.7	41	1.2	35	1.2	68	2.7	175	1.3
Sports, hobbies, practical arts	76	1.8	71	2.0	22	0.8	21	0.8	190	1.4
Poetry, drama, essays	100	2.3	77	2.2	97	3.3	148	5.8	422	3.2
Fine arts	5	0.1	2	0.1	1	0.0	6	0.2	14	0.1
Religion	32	0.7	36	1.0	68	2.3	77	3.0	213	1.6
Others	18	0.4	13	0.4	38	1.3	34	1.3	103	0.8
Total	4,334	99.9	3,487	100.0	2,924	100.0	2,545	99.9	13,290	100.0

in grades is evident and unmistakable. This increase is rather pronounced in the cases of books grouped under biography, travel, modern social problems, history, poetry, drama, essays, and religion. The increase in reading nonfiction is a trend in the right direction.

Some boys answered outright that they had not read any books recently, and many more left the question unanswered. The numbers and percentages are presented in Table 70. The number of pupils who did not answer the question, or at least the greater part of them, can be regarded as not having read a book a month or two previous to the time they answered the questionnaire. The percentages of those who may be regarded as not having read books increase from Freshmen to Seniors. That so large a percentage of Seniors did not read a book for some time before the questionnaire was submitted to them is, perhaps, not surprising as the inquiry form was submitted to pupils in April and May, months when Seniors are very much occupied with activities in preparation for, or preliminary to, graduation.

TABLE 70

NUMBERS AND PERCENTAGES OF PUPILS WHO DID NOT REPORT READING ANY BOOK RECENTLY

	Freshmen (2,428)*		Sophomores (1,940)		Juniors (1,679)		Seniors (1,412)		Total (7,459)	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Read none	20	0.8	17	0.9	23	1.4	21	1.5	81	1.1
No answer	222	9.1	208	10.7	196	11.7	207	14.7	833	11.2

* Number of pupils.

Almost nine in ten books read by Freshmen and Sophomores, about eight in ten read by Juniors, and almost seven in ten read by Seniors were fiction. The percentages of books read in the different classifications are comparable to those of similar studies in reading interests, as is shown in Table 71. The investigation by Center and Persons was carried on among 46,000 boys and girls of nine high schools in New York City, but the table presents data from eight schools. The percentages in the study by Byrns and Henmon are for 1,320 men chosen at random from among entering Freshmen at the University of Wisconsin

in 1929, 1930, and 1931. The group is probably more selected than the Seniors in the twenty-one Catholic high schools. The percentages for the corresponding groups do not vary to such an extent as to make untenable the conclusion that the reading done by pupils in Catholic high schools is normal in comparison with that of pupils of other schools.

TABLE 71

PERCENTAGES OF TYPES OF BOOKS READ BY SENIORS AND ALL PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS, BY PUPILS OF EIGHT NEW YORK CITY HIGH SCHOOLS, AND BY SAMPLES OF HIGH SCHOOL GRADUATES WHO ENTERED THE UNIVERSITY OF WISCONSIN

Types of Books	21 Catholic High Schools	8 New York City High Schools*	21 Catholic High Schools	Entering Freshmen at Wisconsin†
	All Pupils	All Pupils	Seniors	Freshmen
Fiction	79.5	76.2	66.1	58.1
Biography and history	6.9	6.5	13.3	12.2
Travel and true adventure	3.3	2.5	4.1	7.8
Science and philosophy	2.8	3.2	5.0	5.1
Educational	0.2	.....	0.3	6.3
Sports and hobbies	1.4	.....	0.8	3.3
Poetry, drama, essays, and fine arts	3.3	7.8	6.0	6.4
Religion	1.6	.....	3.0	1.1
Others	1.0	3.7	1.3	.....
Total	100.0	99.9	99.9	100.3

* Adapted from Center and Persons, *op. cit.*, p. 720.
† Adapted from Byrns and Henmon, *op. cit.*, p. 62.

Types of books in relation to certain factors. — The relationship between socio-economic status, intelligence, and country of birth of fathers and the types of books read, presented in Table 72, is not clear-cut or evident. Children of professional workers mention standard fiction in a greater proportion and modern light in a smaller proportion than do pupils from other socio-economic groups.

There is slight direct relationship between modern good fiction and nonfiction and the level of intelligence. The greatest percentages of pupils reporting to have read standard fiction and to have read no books are in the lowest quarter of intelligence.

The percentage of standard fiction read by pupils whose fathers were born in foreign countries is greater than for pupils of native-born fathers. The percentage of pupils who did not report any book is smaller

TABLE 72

RELATIONSHIP BETWEEN THE FACTORS OF SOCIO-ECONOMIC STATUS, INTELLIGENCE, AND COUNTRY OF BIRTH OF FATHERS AND THE TYPES OF BOOKS READ

Factors	Standard Fiction		Modern Good		Modern Light		Non-fiction		Read None	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Socio-economic status:										
Proprietary	47	13.9	69	20.5	100	29.7	67	19.9	54	16.0
Professional	20	16.5	27	22.3	33	27.3	26	21.5	15	12.4
Managerial	36	9.5	92	24.4	110	29.2	86	22.8	53	14.1
Commercial-Clerical	51	12.1	101	24.0	116	27.6	86	20.5	66	15.7
Manual	131	12.8	203	19.8	339	33.0	194	18.9	159	15.5
Unknown	12	8.8	22	16.2	52	38.2	27	19.9	23	16.9
*Intelligence:**										
Fourth quarter	68	11.6	139	23.7	175	29.8	135	23.0	70	11.9
Third quarter	70	10.9	140	21.7	202	31.4	125	19.4	107	16.6
Second quarter	72	12.5	115	19.9	196	34.0	110	19.1	84	14.6
First quarter	87	14.3	120	19.7	177	29.1	116	19.0	109	17.9
Country of birth of fathers:										
United States	196	11.0	388	21.7	551	30.9	356	19.9	295	16.5
Other countries	101	16.0	126	20.0	199	31.5	130	20.6	75	11.9

* See note under Table 51, p. 118.

for pupils of foreign-born parents than for pupils whose parents were born in the United States.

Many pupils mentioned more than one book which they had read recently. In tabulating their replies, only the first book mentioned was counted.

Types of magazines read.—The types of magazines which pupils in the twenty-one Catholic high schools usually read are given in Table

TABLE 73

FREQUENCY AND PERCENTAGE OF MENTION OF THE DIFFERENT TYPES OF MAGAZINES READ BY PUPILS AND THE PERCENTAGE OF PUPILS READING THE DIFFERENT TYPES

Types of Magazines	Frequency of Mention	Percentage of Magazines	Percentage of Pupils
Adventure and western	316	2.9	4.2
Business	4	0.0	0.1
Detective and mystery	239	2.2	3.2
Elite and smart	139	1.3	1.9
Farm	10	0.1	0.1
Fine arts	8	0.1	0.1
Fraternal	57	0.5	0.8
Foreign language	....	....	....
Health	15	0.1	0.2
Hobbies	175	1.6	2.3
Humor	23	0.2	0.3
Juvenile	1,252	11.5	16.8
Liberal	....	....	....
Literary criticism	....	....	....
Local	....	....	....
Monthly miscellanies (medium)	563	5.2	7.5
Monthly reviews	5	0.0	0.1
Motion picture	56	0.5	0.8
Women's	44	0.4	0.6
Popular science	1,486	13.6	19.9
Professional	5	0.0	0.1
Quality group	96	0.9	1.3
Radio	39	0.4	0.5
Racial	....	....	....
Digests	1,065	9.7	14.3
Religious	350	3.2	4.7
Sports and outdoors	1,070	9.8	14.3
Trades	....	....	....
Travel	108	1.0	1.4
True story and love	44	0.4	0.6
Weekly miscellanies	2,860	26.2	38.3
Weekly news	464	4.2	6.2
Pictorial	436	4.0	5.8
Total	10,929	100.0	146.4

73, and the percentages of the different types of magazines and of the pupils reading them are also included. "Weekly miscellanies" — such as *Collier's, The Saturday Evening Post,* and *Liberty* — "popular science," "juvenile," "digests," and "sports and outdoors" magazines comprise 70.8 per cent of the magazines pupils usually read. The "weekly miscellanies" are more than a fourth of all mentioned. Only 4.2 per cent are weekly news magazines, and only about one per cent belong to the "quality group," such as *Harper's, Atlantic Monthly,* etc. Relatively few pupils read the pulp magazines, and fewer than one in a hundred read magazines classed under "true story and love." The pictorial magazines in the field of April and May, 1937, comprise 4.0 per cent of those usually read by pupils of the present study.

Seventy-two different magazines were mentioned ten or more times as being usually read, and 146 were mentioned by the entire group of pupils answering the questionnaire. The average number of magazines mentioned per pupil was approximately 1.5.

Rank-order of specific magazines.—The rank of magazines read by boys in the schools of this study and by boys in 198 schools of the Cooperative Study of Secondary School Standards is presented in Table 74. There is a large degree of correspondence in the rank of the different magazines, six in the first ten being common to both groups of schools, and *Reader's Digest* heads both lists. The others common to both groups are *Collier's, Popular Mechanics, Saturday Evening Post, Popular Science Monthly,* and *The American.*

At first glance it would seem that larger numbers of boys read magazines in public schools than do boys in the schools of this study, as one in four, for example, mentions *Reader's Digest* among Cooperative Schools, while only one in eight mentions it in the Catholic high schools. The ratios for the other magazines are somewaht analogous. The large differences in numbers may be due to the fact that pupils in the Cooperative Study had the opportunity to mention all the magazines they read frequently, while in the present study space was provided for mentioning only a few magazines. It would, therefore, probably not reflect the true condition in Catholic high schools to conclude that pupils on the average read fewer than two magazines per pupil.

The number of pupils in the Catholic high schools of this study not reading magazines is not given in the two preceding tables. Approx-

TABLE 74

MAGAZINES USUALLY READ BY 7,459 BOYS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS AND BY 8,494 BOYS IN 198 SELECTED SECONDARY SCHOOLS

Rank	21 Catholic High Schools		198 Secondary Schools*	
	Magazines	Number of Boys	Magazines	Number of Boys
1	Reader's Digest	944	Reader's Digest	2,360
2	Collier's	941	Saturday Evening Post	1,406
3	Popular Mechanics	820	Time	1,395
4	Saturday Evening Post	797	Life	1,393
5	Liberty	777	Popular Mechanics	1,390
6	Boys Life	531	Collier's	1,323
7	Sports magazines	450	American	1,068
8	Popular Science Monthly	420	Literary Digest	1,051
9	American	407	Popular Science Monthly	982
10	The American Boy	361	Boys Life	768
11	Life	359	Liberty	719
12	Time	350	American Boy	645
13	Literary Digest	312	National Geographic Magazine	560
14	Sport	298	Esquire	476
15	Open Road for Boys	201	Newsweek	416
16	Detective	154	Open Road for Boys	326
17	Western	128	Cosmopolitan	299
18	The Catholic Boy	126	Scholastic	240
19	Esquire	123	Look	228
20	Aviation	110	Country Gentleman	176
21	Cosmopolitan	109	Fortune	169
22	Nat'l. Geographic Magazine	108	Redbook	168

* Adapted from Walter Crosby Eells, "What Periodicals Do School Pupils Prefer?" (Reprint from *Wilson Bulletin for Librarians*, December, 1937). *Wilson Bulletin for Librarians*, XII (December, 1937), 248-249.

imately 6 per cent, or 444 pupils, did not answer the question, and 181, or 2.4 per cent, definitely stated that they read none. Thirteen boys said that they read "all kinds;" five, that they read "good ones;" five, that they read "any kind;" two, that they read "most any," and three, that they read "all of them."

Parts of magazines preferred.—More than nine in ten pupils of the Catholic high schools of this study read magazines, and their first choices of preferred sections, as shown in Table 75, are for the parts of magazines that provide entertainment, 71.8 per cent of their first choices being distributed among "sports stories," which holds first place, "short stories," "humorous sections," and "continued stories." It may, therefore, be concluded that pupils of the Catholic high schools do not usually read magazines for information and understanding of what is going on in the world today but rather for entertainment.

TABLE 75

NUMBERS AND PERCENTAGES OF FIRST CHOICES OF PARTS OF MAGAZINES

Parts of Magazines	Frequency of Mention	Percentage
Sports stories	2,238	30.0
Short stories	2,148	28.8
Scientific articles	1,052	14.1
Humorous sections	751	10.1
Articles	350	4.7
Continued stories	218	2.9
Advertisements	109	1.5
Answer not usable	525	7.0
No answer to question	68	0.9
Total	7,459	100.0

Parts of newspapers preferred.—The numbers and percentages of pupils preferring certain parts of the newspapers and the rank of choices in the Catholic high schools of this study and in a group of public schools are shown in Table 76. Boys in Catholic high schools prefer the sports section, the comic strips, and the front page in that order, and these three sections comprise 83.4 per cent of first choices. The newspapers are used largely for entertainment.

The rank of parts of newspapers which pupils usually read, according to Johnson's study, corresponds closely in the first three choices to preferences of pupils in the Catholic high schools. "Comic strips" holds first place; "front page," second; and "sports page," third. Crime and accident news, unless it appears on the first page, is not especially sought after by pupils in either study. Editorials are not read to any great extent by boys from either group of schools, and society news is neglected almost entirely.

Nelson,[27] Center and Persons,[28] Cuzner,[29] and Ross[30] also found

27 K. Irene Bowman Nelson, "Newspaper Reading of High School Pupils," Library Journal, LII (November 1, 1927), 1028-29.

28 Center and Persons, *op. cit.*, p. 723.

29 Fay Cuzner, "Newspaper Reading Habits," *Elementary English Review*, VII (February, 1930), 36.

30 C. L. Ross, "Interests of Adults and High-School Pupils in Newspaper Reading," *School and Society*, XXVII (February 18, 1928), 213.

TABLE 76

NUMBERS AND PERCENTAGES OF PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS INDICATING THEIR FIRST CHOICE IN READING PARTS OF NEWSPAPERS AND THE RANK OF CHOICES; ALSO THE RANK IN THE NUMBER OF BOYS IN GRADES IX TO XI INCLUSIVE WHO USUALLY READ CORRESPONDING SECTIONS OF PAPERS (AFTER JOHNSON)

Section of Newspaper	Frequency of Mention	Percentage	Rank in 21 Catholic High Schools	Rank* (Johnson)
Sports page	2,759	37.0	1	3
Comic strips	2,219	29.7	2	1
Front page	1,243	16.6	3	2
National news	309	4.1	4	7
Editorials	180	2.4	5	8
City news	174	2.3	6	4
Crime news	64	0.9	7	5.5
Accident news	34	0.5	8	5.5
Society	4	0.1	9	9
Answer not usable	453	6.1		
No answer to question	20	0.3		
Total	7,459	100.0		

* B. Lamar Johnson, "Children's Reading Interests as Related to Sex and Grade in School," *School Review*, XL (April, 1932), 266.

high-school pupils interested in the comic strips, sports section, and front page of newspapers. Apparently the interests of high-school pupils in the newspapers are very much the same.

SUMMARY OF THE CHAPTER

Subject preferences.—Every subject offered in the twenty-one Catholic high schools of this study is liked best by some pupils and liked least by others. Usually a greater percentage of pupils express themselves as liking a subject than not. The five subjects liked best by the greatest percentages of pupils taking them are, according to rank: mechanical drawing, general science, chemistry, elementary algebra, and bookkeeping. The rank of the five subjects liked least is: Latin, geometry, algebra, chemistry, and history. Algebra was liked best by approximately a third of the pupils taking it, and more than a fourth liked it least.

Desired subjects.—A great many pupils probably did not know what subjects they wished to take other than the ones they had taken or were

carrying, as almost a third did not answer the question concerning desired subjects which the school did not offer. The evidence presented points unmistakably to the fact that the greater number of pupils answering the question wished to take subjects of a vocational nature.

Of pupils who answered the questionnaire and took the intelligence test, more than two in five, irrespective of socio-economic status, intelligence, or country of birth of fathers, did not mention any subject which they wished to take but which was not offered. Commercial subjects were desired by approximately one in nine pupils; and socio-economic status and intelligence had no apparent influence on the choices of pupils. One in nine boys whose fathers were native-born desired commercial subjects, but more than one in seven pupils of foreign-born fathers expressed the desire for these courses. More than one in four desired industrial arts. The range in the proportions of pupils desiring industrial arts is: (1) on the basis of socio-economic status, from one in five for the professional group to one in three for the "manual" group; (2) from the point of view of intelligence, about one in four for fourth-quarter pupils to about one in three for the first-quarter pupils; (3) from the standpoint of country of birth of fathers, the proportions are about the same, more than one in four for children of both native-born and foreign-born fathers desiring industrial-arts subjects.

Religious activities.—Five in every ten pupils go to Mass oftener than is required by the precepts of the Catholic Church, and only about one in 500 does not live up to this religious obligation. More than ninety-five out of a hundred receive Holy Communion oftener than is required to retain good standing in the Catholic Church. Almost one in two receive Holy Communion weekly. Boys in Catholic high schools, as a group, go beyond the requirements of the Church in regard to the two important religious obligations of hearing Mass and receiving Communion.

Amusements and recreations.—Slightly more than two of every five activities mentioned by boys as their chief amusements and recreations are team games, and about one in five is an individual or dual athletic activity. Participation rather than watching is the rule. One in four leisure-time pursuits mentioned comes under the class of "sedentary" activities, and attendance at motion picture shows comprises two-thirds of the sedentary activities. Crafts, hiking, camping and fishing, artistic

expression activities, and social activities are not mentioned very frequently as favorite recreations.

Baseball, a seasonable activity, occupies first rank among the principal recreations of boys of this study. Other amusements according to rank are: attending motion pictures and shows, sports, swimming, football, basketball, reading, dancing, tennis, fishing, and hunting.

There is no pronounced relationship between socio-economic status, country of birth of fathers, and intelligence of pupils and types of amusements. A slightly greater percentage of pupils from the first quarter of intelligence than from other quarters mention sports as their chief recreation, and a smaller percentage mention reading. A slightly greater percentage of children of foreign-born fathers, as compared with children of native-born fathers, give sports as their chief amusement.

Radio programs.—Almost nine-tenths of the radio programs which pupils in these Catholic high schools listen to most frequently are ones that furnish entertainment rather than information other than advertising. Eighteen of the twenty programs listened to most frequently are purely entertainment programs.

Socio-economic status, intelligence, and country of birth of fathers bear no clear-cut relationship to types of radio programs listened to most often. Children from the professional group listen to variety programs and modern music more than do pupils from the other socio-economic groups. Children of "manual" workers prefer stories to a greater extent than do pupils from other occupational classifications. Pupils with intelligence quotients in the fourth quarter turn to variety programs in greater proportions and to stories and modern music in smaller proportions than do pupils with intelligence quotients in the other three quarters. Children whose fathers were foreign-born listen to programs classed as "others" — sports, concerts, talks, etc. — in greater percentages than do children of native-born fathers.

Types of books read.—Almost nine of ten books read by Freshmen and Sophomores, almost eight of ten read by Juniors, and about seven of ten read by Seniors are fiction. But whereas almost six of every ten books read by Freshmen are light fiction, there is a steady decrease in this type of reading from grade to grade until in Grade XII only slightly more than three in ten books read are light fiction. This increase in the reading of better type fiction as pupils progress through

school is also evident for books dealing with biography, travel, modern social problems, history, poetry, and religion.

The relationship between socio-economic status, intelligence, and country of birth of fathers and types of books read is not clear-cut. Standard fiction is reported in greatest proportions by pupils of professional workers, by pupils in the first quarter of intelligence, and by children whose fathers are foreign-born; modern light fiction, by pupils from the "manual" groups, by pupils in the second quarter of intelligence, and by pupils whose fathers are foreign-born; nonfiction, by pupils from the managerial group, by pupils in the fourth quarter of intelligence, and by children whose fathers were born in foreign countries. The smallest percentages of pupils who read no books were from the professional group, from the fourth quarter of intelligence, and from the "other countries" classification.

Types of magazines read.—More than nine in ten pupils in the Catholic high schools of this study read magazines. Seven of ten magazines read are weekly miscellanies, digests, popular science, and sports and outdoor types. One in four belong to the weekly miscellanies type, such as *Collier's* and *The Saturday Evening Post.* The cheap varieties of magazines, such as detective, western, confession, true story, etc., do not have a large following, and the same is true for the quality group exemplified by such magazines as *Harper's* and *The Atlantic Monthly.* The types of magazines usually read by pupils in the Catholic high schools of this study are approximately the same as those read by pupils in other schools as reported in various studies.

Preferred sections of magazines.—The parts of magazines preferred by pupils are those which give entertainment, more than seven in ten of the first choices of sections being distributed among "sports stories," short and continued stories, and humorous sections.

Parts of newspapers preferred.—The sports page is the first choice of boys in reading the newspaper, followed by comic strips and the front page in that order. These three sections hold the first three places among sections preferred by pupils in other studies on newspaper reading at the high-school level.

The subject-interests of pupils are inclined more towards courses with practical values than to those that are disciplinary and college preparatory in nature. Pupils in school perform satisfactorily their two

most important religious obligations; they listen to radio programs that are almost entirely of the entertainment or diversion type; they engage largely in recreations that are either of an athletic or of a sedentary nature; and they read, apparently, more for diversion than for information or instruction. Do former pupils appreciate the value of subjects they had in school, or do they, too, wish they could have taken more practical subjects? Do they continue to practice certain religious activities? Has their taste improved appreciably as shown in the types of reading and recreations they usually engage in? Are their leisure-time activities seemingly used for self-improvement or merely for diversion? Answers to these questions are given in Chapter VIII.

CHAPTER VII

INTENSIVE STUDY OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS

THE PURPOSE OF THE CHAPTER

In the present chapter Juniors and Seniors in the twenty-one Catholic high schools for boys who were given intelligence tests are studied more intensively. They are grouped on the basis of the curriculum they followed; that is, as pupils in the academic, scientific, general, or commercial curriculum. Data are presented on the numbers in the different curriculums, country of birth of fathers, socio-economic status of fathers, number of units taken in the different subject-fields, intelligence of pupils, achievement, vocational plans, and educational expectations. The data are for pupils who were in school in 1936-37.

A second type of information is given for groups of pupils, separated according to the curriculum they pursued. In this body of data certain factors which might provide further bases for judging the suitability of the curriculum for the pupils following different types of school work are given in relationship to one another. These relationships are: educational plans and intelligence, educational plans and achievement, educational plans and vocational plans, educational plans and socio-economic status, vocational plans and intelligence, vocational plans and socio-economic status, intelligence and achievement, and socio-economic status and intelligence.

THE PUPILS AND THE CURRICULUMS THEY FOLLOW

The numbers of Juniors and Seniors who both filled out the pupil questionnaire and took the intelligence test are 569 and 599, respectively. These numbers are somewhat smaller than the numbers of Juniors and Seniors who took the intelligence tests — 590 Juniors and 624 Seniors — due to the fact that some of the boys who were given the tests did not fill out the inquiry forms. A total of 1,168 pupils is considered in this part of the study.

The number of Juniors and Seniors enrolled in the different curriculums is an approximation, as pupils in schools in which the curriculum

is organized after the constants-with-variables pattern are placed in curriculums according to the subjects they carried.[1]

Numbers of Juniors and Seniors in the different curriculums.—The numbers and percentages of Juniors and Seniors enrolled in the different curriculums are shown in Table 77. The percentages taking college

TABLE 77

NUMBERS AND PERCENTAGES OF JUNIORS AND SENIORS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS FOR BOYS ENROLLED IN THE DIFFERENT CURRICULUMS

Curriculums	Juniors		Seniors		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Academic	283	49.7	324	54.1	607	51.9
Scientific	110	19.3	100	16.7	210	18.0
General	58	10.2	69	11.5	127	10.9
Commercial	118	20.7	106	17.7	224	19.2
Total	569	99.9	599	100.0	1,168	100.0

preparatory curriculums — that is, the academic and scientific curriculums — are approximately the same as for 1935-36. Seventy per cent of the pupils considered in the present chapter were in these two curriculum in 1936-37, and 66.3 per cent of all Juniors and Seniors were enrolled in them in 1935-36.[2] A greater percentage of the 1936-37 group, however, was taking the academic curriculum than was enrolled in that curriculum in 1935-36. The reverse is true for pupils in the scientific curriculum. Of the 1,168 Juniors and Seniors studied in this chapter, 51.9 per cent were enrolled in the academic curriculum; 18.0 per cent, in the scientific; 10.9 per cent, in the general; and 19.2 per cent, in the commercial. Thus, more than two-thirds of the pupils were enrolled in curriculums that are purely college preparatory. And as the general and the commercial curriculums in some schools are ones in which minimum college entrance subjects are required, it may be said that almost all pupils were taking subjects required by colleges, although these pupils were not all taking curriculums that were in their stated nature or purpose college preparatory.

Country of birth of fathers and curriculums.—The relationship of the country of birth of fathers to the curriculums their sons follow is

1 Pp. 32-34.
2 Table 13, p. 33.

presented in Table 78. The percentages of fathers born in the United States are highest (76.6) for pupils taking the scientific curriculum, and lowest (66.0) for pupils enrolled in the commercial curriculum. On the other hand, the percentages of pupils of foreign-born parents are highest for the commercial curriculum (29.5), and lowest for the scientific curriculum (22.4).

TABLE 78

NUMBERS AND PERCENTAGES OF FATHERS OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS BORN IN THE UNITED STATES AND IN OTHER COUNTRIES

Country of Birth	Academic		Scientific		General		Commercial		All	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
United States	438	72.2	161	76.6	92	72.4	148	66.0	839	71.8
Others	153	25.2	47	22.4	34	26.8	66	29.5	300	25.7
Unknown	16	2.6	2	1.0	1	0.8	10	4.5	29	2.5
Total	607	100.0	210	100.0	127	100.0	224	100.0	1,168	100.0

The percentages of fathers born in various foreign countries are not shown, but in referring to the table it was found that pupils whose fathers were born in Ireland are in all curriculums. They follow, however, the commercial curriculum in much greater proportions than they do the others. Sons of fathers born in Poland largely follow the academic curriculum, almost four times as many taking this curriculum as the other curriculums combined. Boys of Polish extraction almost completely neglect the commercial curriculum. The numbers of pupils whose fathers were born in the various other countries are too small to support reliable conclusions.

The data in this study conform, in general, with those of Counts who reported that in the Bridgeport, Connecticut, high school in which college preparatory, industrial arts, commercial, general, and scientific curriculums were offered, boys whose parents were born in the United States, in the British Empire, in Germany, or in Scandinavian countries tended to take the scientific curriculum, while the greatest percentages of boys whose fathers were born in Austria-Hungary, Italy, or Poland enrolled in the college preparatory curriculum.[3] The general and the

3 Counts, *The Selective Character of American Secondary Education*, p. 112.

industrial-arts curriculums were not followed to a great extent by pupils of any national groups, but about a seventh of all boys except those whose fathers were born in Poland, Russia, and the Scandinavian countries followed the commercial curriculum.[4]

The data of this study do not, however, correspond to those found in the National Survey of Education. The authors of the report, *The Secondary-School Population,* after giving percentages of pupils of foreign-born fathers in the different kinds of curriculums in various types of schools, conclude that there is "some tendency for pupils with parents born in foreign countries to choose curriculums and schools of the commercial and industrial type."[5] It seems, however, that the type of school rather than the curriculum is most important in determining which school pupils attend. This conclusion is borne out in Monograph No. 2 of the National Survey of Secondary Education in which evidence is presented to show that "the largest percentage of foreign-born fathers of pupils in trade schools come from Poland and Italy, in technical schools from Germany and Poland, and in commercial schools from Russia and the British Empire."[6] The authors state that socio-economic status is a more influential factor in determining what school a pupil shall attend than is the country of birth of his father.[7]

Socio-economic status and curriculums.--The only specifically vocational curriculum generally offered in the Catholic high schools of this study is the commercial curriculum, and that pupils from homes on the lower economic levels follow it slightly more than they do other curriculums is shown in Table 79, which presents the numbers and percentages of pupils from various socio-economic groups in the four curriculums. The different economic classifications are represented in all curriculums. Pupils whose fathers are proprietors comprise 15.4 per cent of all pupils represented in the table, but they are 20.5, 18.1, 15.8, and 8.9 per cent of all those taking the general, the scientific, the academic, and the commercial curriculum, respectively. Relatively, the pupils whose fathers are proprietors seem to prefer the general curriculum most and the commercial curriculum least. The children of professional workers, on the basis of percentages, prefer the academic and general curriculums;

4 *Ibid.*

5 Kefauver, Noll, and Drake, *The Horizontal Organization of Secondary Education,* p. 53.

6 *Ibid.,* p. 142.

7 *Ibid.,* pp. 141-42.

TABLE 79

NUMBERS AND PERCENTAGES OF FATHERS OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS ENGAGED IN DIFFERENT OCCUPATIONS

Occupations of Fathers	Academic		Scientific		General		Commercial		All	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Proprietary	96	15.8	38	18.1	26	20.5	20	8.9	180	15.4
Professional	43	7.1	9	4.3	8	6.3	7	3.1	67	5.7
Managerial	108	17.8	37	17.6	15	11.8	26	11.6	186	15.9
Commercial-Clerical	96	15.8	34	16.2	27	21.3	40	17.9	197	16.9
Manual	223	36.7	81	38.6	46	36.2	110	49.1	460	39.4
Unknown	41	6.8	11	5.2	5	3.9	21	9.4	78	6.7
Total	607	100.0	210	100.0	127	100.0	224	100.0	1,168	100.0

of managerial workers, the academic and scientific curriculums; of commercial-clerical workers, the general and commercial curriculums; and of "manual" workers, the commercial and scientific curriculums. Almost 60 per cent of the pupils following the academic, scientific, and general curriculums are from the higher socio-economic groups, but only slightly more than 40 per cent of pupils enrolled in the commercial curriculum are from these groups.

In the preceding table are considered the numbers and percentages of pupils of different socio-economic status in each curriculum. The percentages representing children whose fathers are proprietors, managers, commercial-clerical workers, and "manual" workers, for example, are greater than the percentage of children of fathers in professions, because the numbers of children from each of the former groups are larger than the number from the latter. When figures are given to show the percentages of all children of proprietors or of managers or of tradesmen, who take the academic curriculum, for instance, the percentages do not vary so greatly. This information is given in Table 80 for

TABLE 80

NUMBERS AND PERCENTAGES OF PUPILS FROM DIFFERENT SOCIO-ECONOMIC LEVELS ENROLLED IN THE ACADEMIC AND THE COMMERCIAL CURRICULUM

Socio-Economic Levels	Number in All Curriculums	Academic		Commercial	
		Number	Percentage	Number	Percentage
Proprietary	180	96	53.3	20	11.1
Professional	67	43	64.2	7	3.9
Managerial	186	108	58.1	26	14.0
Commercial-Clerical	197	96	48.7	40	20.3
Manual	460	223	48.5	110	23.9
Unknown	78	41	52.6	21	26.9

the academic and commercial curriculums, not for purposes of comparing the percentages of the different socio-economic groups in the academic curriculum with percentages in the commercial, but rather to compare academic curriculum percentages with one another, and to do the same with commercial curriculum figures. The percentages representing the children from the different socio-economic groups in the academic curriculum range from 48.5 for the "manual" groups to 64.2 for the professional group. In the commercial curriculums, excluding the

unknown group, the range is from 3.9 per cent for children of professional workers to 23.9 for children whose fathers are "manual" workers.

The conclusion from these data is that while socio-economic status has some influence on the choice of curriculums, there apparently is some other factor or factors operative.

Of pupils taking the academic curriculum, 56.5 per cent are sons of fathers who have "white-collar" jobs, and of pupils enrolled in the scientific curriculum, 56.2 per cent are from the higher economic levels. For the general curriculum, this percentage rises to 59.9, but for the commercial curriculum it drops to 41.5. This is shown in Figure 1. In only the commercial curriculum, therefore, is the percentage of sons from the lower economic levels greater than the percentage of pupils from the upper brackets.

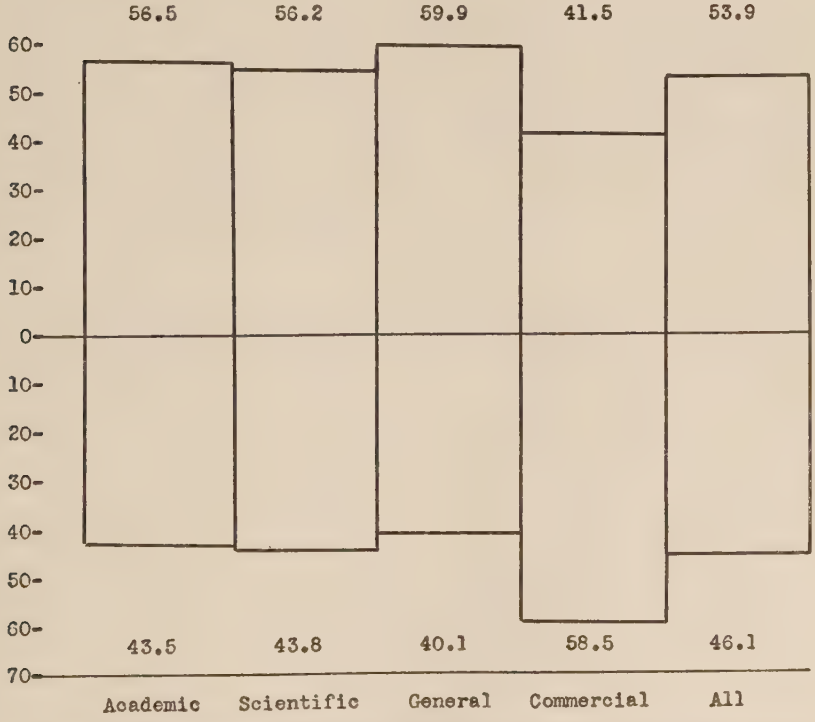

Fig. 1—Percentages of fathers of Juniors and Seniors in the different curriculums employed in "white-collar" or in "manual" or other work. ("White-collar" workers above dividing line; "manual" workers and others, below.)

The findings of this study conform, in general, with those of reported investigations on the relations between socio-economic status and curriculums. Counts has shown that children from the lower economic levels patronize curriculums which point towards wage earning rather than toward college.[8] In the National Survey of Secondary Education the same trend was found — "the nonvocational curriculum groups stand distinctly higher in the occupational classification than those in vocational curriculums."[9] Chilson, too, found a positive relation between the lower socio-economic status of fathers and the two-year vocational curriculum that their children chose in school.[10]

Intelligence and curriculums.—Boys of high and low intellectual levels are in the different curriculums, as is shown in Table 81, but it is evident that pupils in the highest quarter of intelligence are in the academic and scientific curriculums in larger proportions than in the general and commercial curriculums. The general curriculum especially appeals to pupils with lower intelligence quotients, although this is true

TABLE 81

NUMBERS AND PERCENTAGES OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS WITH INTELLIGENCE QUOTIENTS IN THE DIFFERENT QUARTERS *

Quarters	Academic		Scientific		General		Commercial	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Fourth quarter	196	32.3	57	27.1	10	7.9	38	17.0
Third quarter	158	26.0	68	32.4	34	26.8	46	20.5
Second quarter	124	20.4	55	26.2	34	26.8	60	26.8
First quarter	129	21.3	30	14.3	49	38.5	80	35.7
Total	607	100.0	210	100.0	127	100.0	224	100.0

* The median and the first and third quartile marks used in deriving the different quarters are those given in Table 40, p. 95. Of 1,214 Juniors and Seniors who took the intelligence test, 1,168 filled out questionnaires. The number represented in this table is 1,168. The number of pupils in each quarter is not twenty-five per cent of 1,168, but rather the number who filled out questionnaires and whose intelligence quotients are in the first, second, third, or fourth quarter, based on 1,214 pupils. Fifty-two per cent of the Juniors and Seniors who answered the questionnaire have intelligence quotients above the median of Juniors and Seniors who took the intelligence test.

8 Counts, *The Selective Character of American Secondary Education*, pp. 72-73.

9 Kefauver, Noll, and Drake, *The Horizontal Organization of Secondary Education*, p. 180.

10 Chilson, *op. cit.*, p. 91.

to about the same extent of the commercial curriculum. A smaller percentage of boys in the lowest quarter enroll in the scientific curriculum than in any of the other curriculums, and a greater percentage of boys in the highest quarter follow the academic curriculum than any of the other three curriculums.

That pupils with intelligence quotients above the median choose the academic and scientific curriculums in larger proportions than do pupils with intelligence quotients below the median is shown in Figure 2. Approximately 60 per cent of the boys taking the academic and scientific curriculums have intelligence quotients above the median for all Juniors and Seniors examined, and more than 60 per cent of those enrolled in the general and commercial curriculums have intelligence quotients below the median. There is, therefore, a strong relationship

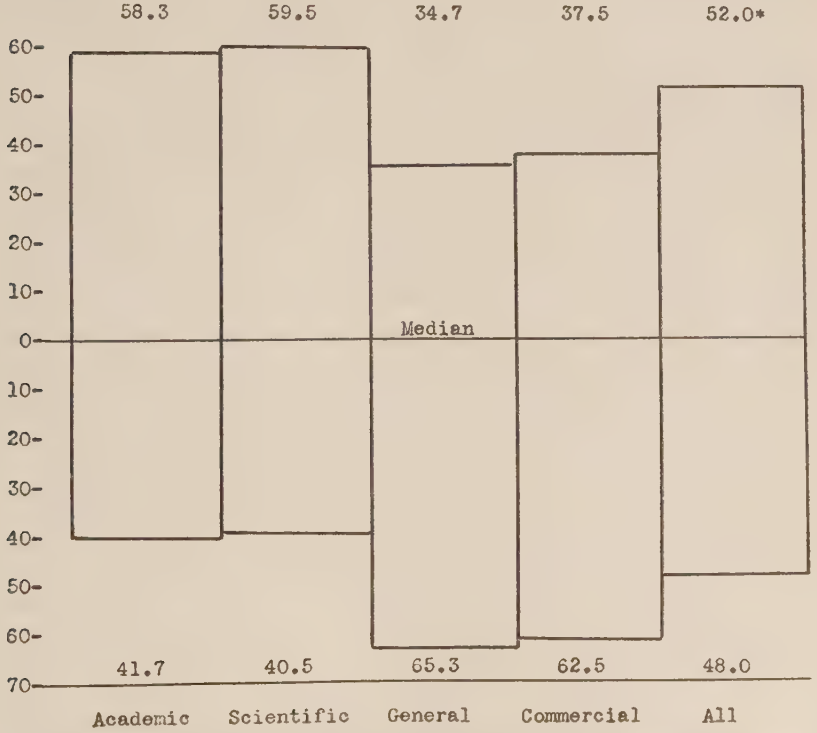

Fig. 2.—Percentages of Juniors and Seniors in the different curriculums having intelligence quotients above or below the median for all Juniors and Seniors.

* See note under Table 81, p. 170.

between the intelligence of pupils, taken as a group, and the curriculums they follow.

The tendency for pupils of high mental ability to follow the academic and scientific curriculums, and for pupils with low intelligence quotients to pursue vocational curriculums is also reported in other studies. In the investigations conducted by members of the staff of the National Survey of Secondary Education, the median intelligence quotients of pupils in the general high school were, according to the curriculums they followed: 108.0 in the scientific curriculum; 107.6 in the general curriculum; 106.2 in the academic curriculum; 103.7 in the commercial curriculum; and 94.6 in the industrial-arts curriculum.[11] Rutledge and Fowler reported mean intelligence quotients of pupils pursuing different curriculums in eight senior high schools in Oakland, California, as follows: 111.32 in college preparatory curriculums; 99.01 in the commercial curriculum; 96.70 in the general curriculum; and 92.63 in trade-preparatory curriculums.[12] Engle found results similar to those of Rutledge and Fowler for pupils in the academic, commercial, and vocational curriculums.[13]

The findings of these studies do not indicate that pupils with high intelligence quotients do not take industrial-arts or commercial curriculums, nor do they show that no pupils of low intelligence quotients take college preparatory curriculums. The findings show that pupils in general follow programs in which they can succeed and which prepare them for the kinds of work they will take up when they start to earn a living.

Achievement and curriculums.—Much the same relationship that exists between the intelligence of pupils and the curriculum they follow exists also between achievement and curriculums, as is shown in Table 82. Achievement is represented by the average of all marks pupils earned in the subjects they carried in the years previous to the time the data were collected. Senior marks are for seven semesters of high school and Junior marks for five.

The pupils in the academic and scientific curriculums earn A's in

11 Kefauver, Noll, and Drake, *The Horizontal Organization of Secondary Education*, p. 138.

12 R. E. Rutledge and A. Fowler, "The Changing Senior High-School Population and the Curriculum Problem," *School Review*, XL (February, 1932), 110.

13 T. L. Engle, "A Comparative Study of Pupils in Academic, Commercial, and Vocational Curriculums," *School Review*, XXXIX (November, 1931), 669.

TABLE 82

NUMBERS AND PERCENTAGES OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS EARNING AVERAGE MARKS OF A, B, C, D, OR F

Achievement Marks	Academic		Scientific		General		Commercial	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
A (93-100)	62	10.2	24	11.4	2	1.6	8	3.6
B (85-92)	237	39.0	69	32.8	21	16.5	76	33.9
C (78-84)	209	34.4	68	32.4	48	37.8	85	37.9
D (70-77)	90	14.8	47	22.4	54	42.5	50	22.3
F (0-69)	9	1.5	2	1.0	2	1.6	5	2.2
Total	607	99.9	210	100.0	127	100.0	224	99.9

much larger proportions than do pupils in the general and commercial curriculums. B's are earned by academic, scientific, and commercial pupils in about the same proportions, but the percentage of pupils in the general curriculum earning this mark is approximately half the percentages earning it in the other three curriculums. Pupils in the general curriculum, for the most part, earn C's and D's. The percentages of pupils whose average marks fall below the passing mark are approximately the same in all curriculums.

That pupils with greater abilities to achieve school work take the academic and scientific curriculums in larger proportions than the general and the commercial curriculum is graphically presented in Figure 3. The percentages of pupils earning marks of B or better are: in the academic curriculum, 49.2; in the scientific, 44.2; in the commercial, 37.5; and in the general, 18.1. The percentages of pupils earning marks lower than B are greater than fifty in all curriculums, but whereas 50.7 per cent of pupils in the academic curriculum received average marks below B, 81.9 per cent of the pupils in the general curriculum earned average marks lower than B.

It is apparent that pupils with low ability to achieve secondary school work, as measured by average marks, tend to enroll in the general and also in the commercial curriculum. However, such pupils follow, relatively, the commercial curriculum to a less extent than they do the general curriculum.

Vocational plans and curriculums.—Some of the schools of this study did not offer all four curriculums considered in this chapter, and, there-

fore, some pupils could not take certain curriculums even had they wished to prepare for certain types of work. The commercial curriculum was the only purely vocational one generally offered, and if a boy, enrolled in a school which did not offer this curriculum, wished to enter some form of commercial or clerical calling, he did not have the opportunity to enroll in the curriculum that prepared him specifically for his chosen work. The fact that some of the schools of this study did not offer the commercial curriculum accounts to some extent for the fact that boys with commercial and clerical plans were in curriculums that did not prepare them for the type of work they expected to follow.

The broad vocational plans of pupils and the curriculums they followed are presented in Table 83. Pupils expecting to take up a pro-

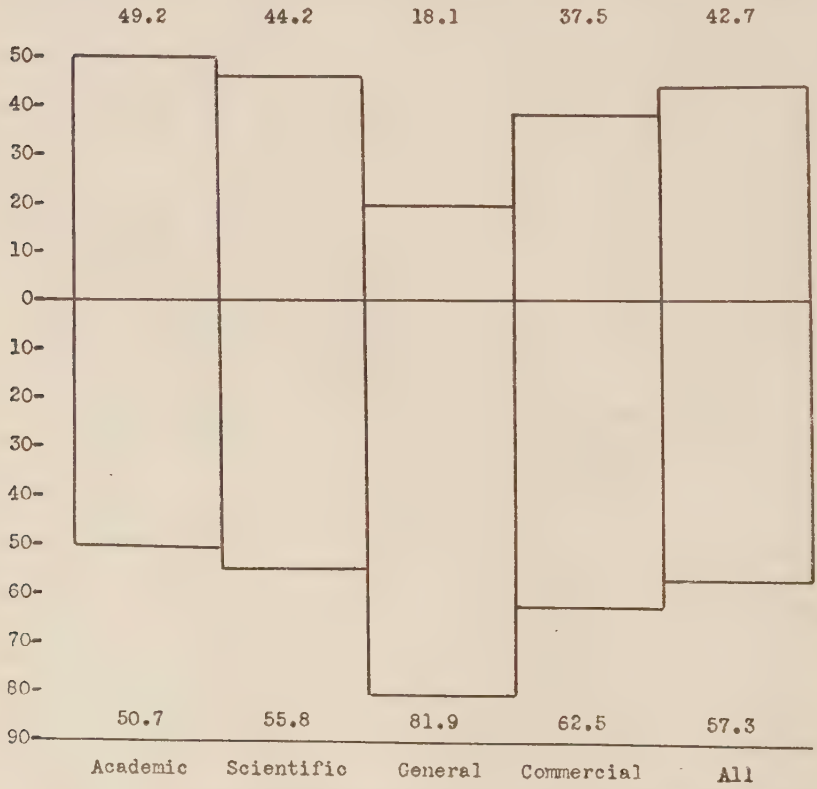

Fig. 3.—Percentages of Juniors and Seniors in the different curriculums earning average marks of A or B (above the line) and C, D, or F (below the line).

TABLE 83

NUMBERS AND PERCENTAGES OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS REPORTING PLANS TO ENTER THE DIFFERENT OCCUPATIONAL FIELDS

Occupational Plans	Academic		Scientific		General		Commercial	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Professions	212	34.9	33	15.7	35	27.5	26	11.6
Engineering	61	10.0	77	36.7	7	5.5	2	0.9
Owners-Managers	29	4.8	10	4.8	10	7.9	16	7.1
Commercial	45	7.4	11	5.2	15	11.8	38	17.0
Clerical	44	7.2	15	7.1	11	8.7	59	26.3
Skilled trades	60	9.9	26	12.4	22	17.3	27	12.1
Semi-skilled trades	23	3.8	5	2.4	3	2.4	11	4.9
Unskilled labor	7	1.2	....	....	1	0.8	....	....
Work (unspecialized)	16	2.6	7	3.3	6	4.7	25	11.2
No plans mentioned	110	18.1	26	12.4	17	13.4	20	8.9
Total	607	99.9	210	100.0	127	100.0	224	100.0

fession comprise 34.9 per cent of all pupils enrolled in the academic curriculum, 15.7 per cent of all following the scientific, 27.5 per cent of all taking the general, and 11.6 per cent of all taking the commercial curriculum. As even the commercial curriculum in schools offering it included subjects necessary for college entrance, pupils expecting to take up the professions are, for the most part, carrying work that will admit them to colleges.

Pupils who plan to take up engineering, which was separated from the other professions because of the large number of boys intending to take up some kind of engineering work, comprise 36.7 per cent of all taking the scientific curriculum. Boys who expect to enter the commercial and clerical fields, are 43.3 per cent of all enrolled in the commercial curriculum. Those who signify they will take up skilled trades are represented in all curriculums in rather large proportions, but they are in the general and scientific curriculums to a greater extent than in the other two.

A considerable group of pupils in answering the question regarding vocational plans mentioned that they were going to "work." As the greatest percentage of these are following the commercial curriculum, it may be assumed that the work they hope to do is of a commercial or clerical nature.

A rather large number of boys mentioned that they had no plans for an occupation or were undecided. They are enrolled in the academic curriculum in larger proportions than in any of the other three curriculums. As will be shown later on, a large percentage of pupils who have no vocational plans expect to enter college. They are, therefore, following the curriculum that prepares them for what they intend to do immediately after high-school graduation.

The numbers representing the groups with different vocational plans show more clearly than the percentages do that pupils who expect to follow the professions take, for the most part, the academic curriculum; pupils planning to take engineering, take the academic and scientific curriculums; prospective commercial and clerical workers generally enroll in the academic or commercial curriculum; those expecting to enter the skilled trades are in all curriculums but the greatest number are in the academic curriculum; and those planning to be semi-skilled workers enroll in the academic and commercial curriculums largely.

In these Catholic high schools, pupils who plan to enter the higher vocational callings enter curriculums which may serve as preparation for such vocational objectives. But pupils who wish to become workers on the lower socio-economic levels do not have specific preparation other than their general education for their vocational choice. General education is, in the opinion of the writer, the most important type of preparation, but should not be, in all cases, the only kind of preparation.

Whether the school offerings have a direct effect on choice of occupation, or whether pupils with certain vocational plans enter types of schools which prepare them for their chosen work is hard to determine. The writer is inclined to believe that the school offerings are more powerful in influencing vocational choice. Data for individual schools show that in institutions in which the commercial curriculum is offered, large percentages of pupils plan to enter commercial and clerical occupations. In schools offering only purely academic work, large percentages intend to take up the professions.

Vocational opportunities in cities also have an effect on choice of occupations. In cities in which there are technical schools in connection with industry, as in Fort Wayne, Dayton, and Detroit, for example, a considerable group of pupils express the desire to enter these schools to prepare for specific trades. In cities which are largely industrial, many pupils look forward to take up a trade. Thus the occupational plans of

pupils depend to some extent on the vocational opportunities available.

It has been shown in an earlier chapter[14] that the pupils in the Catholic high schools of this study do not differ greatly in the matter of vocational choice from pupils from other groups of schools. The tendency for pupils of all curriculums to choose the "white-collar" jobs is shown in Figure 4. The percentages above the dividing lines represent pupils who expect to enter the professions, the commercial and clerical fields, or to become owners and managers. In each curriculum the percentages of pupils who hope to enter these fields of work lie between 60 and 70. The percentages of those who expect to take up the trades range from 17.5 for pupils in the academic curriculum to 28.2 for those in the commercial curriculum. The shaded portions of the figure represent boys who mentioned no plans. The range of percentages for this particular group is from 8.9 for the commercial-curriculum

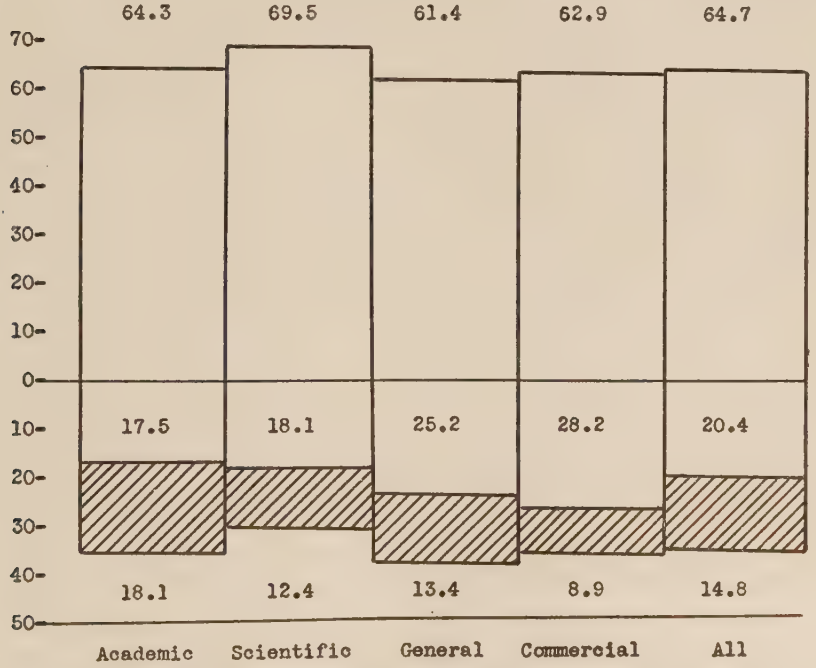

Fig. 4.—Percentages of Juniors and Seniors in the different curriculums who plan to enter the different occupational fields. ("White-collar" workers above dividing line; "manual" workers unshaded portions below the line; "no plans," shaded portions.)

14 Chapter v, Table 44, p. 106.

pupils to 18.1 for those in the academic curriculum. Thus the commercial curriculum is influential in determining a vocational choice. As will be pointed out later, many of the pupils in the academic curriculum who expressed no vocational plan expect to enter college.

One of the important purposes of a secondary school is to make available to pupils a general education, but that does not prevent pupils from preparing for some specific vocation at the same time.[15] In the National Survey of Secondary Education it was found that the most important reason pupils pursued certain curriculums was to prepare for an occupation.[16] Although some pupils followed curriculums that were only remotely related to the type of work they planned to enter, those who were in academic curriculums planned to follow the professions in greater percentages than any other kind of work, and those in commercial curriculums intended largely to pursue commercial or clerical callings.[17] That the same tendency is at work among the pupils in this study is apparent from the preceding sections.

Educational plans and curriculums.—The academic and scientific curriculums are purely college preparatory, and almost two-thirds of the pupils taking them expect to go to college, as is shown in Table 84. The general curriculum serves as preparation for college too, in as much as pupils enrolled in it can elect subjects required for admission to colleges and universities. The same holds true for the commercial curriculum in the Catholic high schools of this study. Slightly more than 50 per cent of the pupils in the general curriculum plan to go to college, and fewer than 30 per cent of those taking the commercial curriculum expect to continue their education in colleges.

Small percentages of pupils indicated that they intended to go to types of schools other than colleges. Not one in ten pupils in any of the four curriculums expects to continue his education in schools on the secondary level.

Approximately a fifth of the academic and scientific pupils, a fourth of the general, and a half of the commercial curriculum pupils

15 Thomas H. Briggs (chairman), *Issues of Secondary Education*, Report of the Committee on the Orientation of Secondary Education, pp. 185-211. Bulletin of the Department of Secondary-School Principals of the National Education Association, Vol. xx, No. 59. Washington, D. C.: Department of Secondary-School Principals, 1936.

16 Kefauver, Noll, and Drake, *The Horizontal Organization of Secondary Education*, p. 181.

17 *Ibid.*, p. 172.

definitely indicated that they did not intend to go to college. Approximately a tenth of each group were undecided or did not answer the question regarding their educational plans after completing high school.

The percentages of pupils who indicated they would continue or not continue their education after completing high school, and also the percentages of those who were undecided or did not answer the question regarding future educational plans are represented in Figure 5. The parts of the columns above the dividing line represent pupils who intend to continue their studies either in college or some other school. The shaded parts of the columns represent those who definitely are not going to college, and the unshaded portions below the line stand for those who were undecided or did not answer the question. Almost three-fourths of pupils in the academic and scientific curriculums, slightly more than three-fifths of those in the general curriculum, and about two-fifths of those in the commercial curriculum plan to continue their education.

The percentages of pupils planning to go to college correspond, in general, to the findings in the National Survey of Secondary Education. In the general high school, 74.3 per cent of the pupils pursuing the academic curriculum, 68.2 per cent of those in the scientific curriculum, 45.5 per cent of those in the general curriculum, and 19.2 per cent of those in the commercial curriculum intended to enter colleges and universities.[18]

TABLE 84

NUMBERS AND PERCENTAGES OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS REPORTING DIFFERENT EDUCATIONAL PLANS

Educational Plans	Academic		Scientific		General		Commercial	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
College or university	374	61.6	132	62.9	67	52.7	58	25.9
Junior college	11	1.8	....	....	2	1.6	6	2.7
Business college	23	3.8	7	3.3	1	0.8	10	4.4
Technical school	13	2.1	8	3.8	2	1.6	5	2.2
Night school	16	2.6	3	1.4	6	4.7	6	2.7
Art school	1	0.2	1	0.5	1	0.8	....	....
Undecided as to college	28	4.6	13	6.2	9	7.1	15	6.7
Not going to college	112	18.5	41	19.5	34	26.8	110	49.1
No answer	29	4.8	5	2.4	5	3.9	14	6.3
Total	607	100.0	210	100.0	127	100.0	224	100.0

18 *Ibid.*, p. 170.

RELATIONSHIP BETWEEN SUBJECTS AND INTELLIGENCE, SOCIO-ECONOMIC STATUS, AND COUNTRY OF BIRTH

The Freshmen subjects, which were usually required, were approximately the same in the twenty-one Catholic high schools, and the same is true of Sophomore subjects.[19] Hence, the percentages of Freshmen and Sophomores whose fathers are in the different socio-economic levels[20] also represent the percentages of Freshmen and Sophomores from these socio-economic levels taking the various subjects. In other words, as the subjects are almost uniformly required in Grades IX and

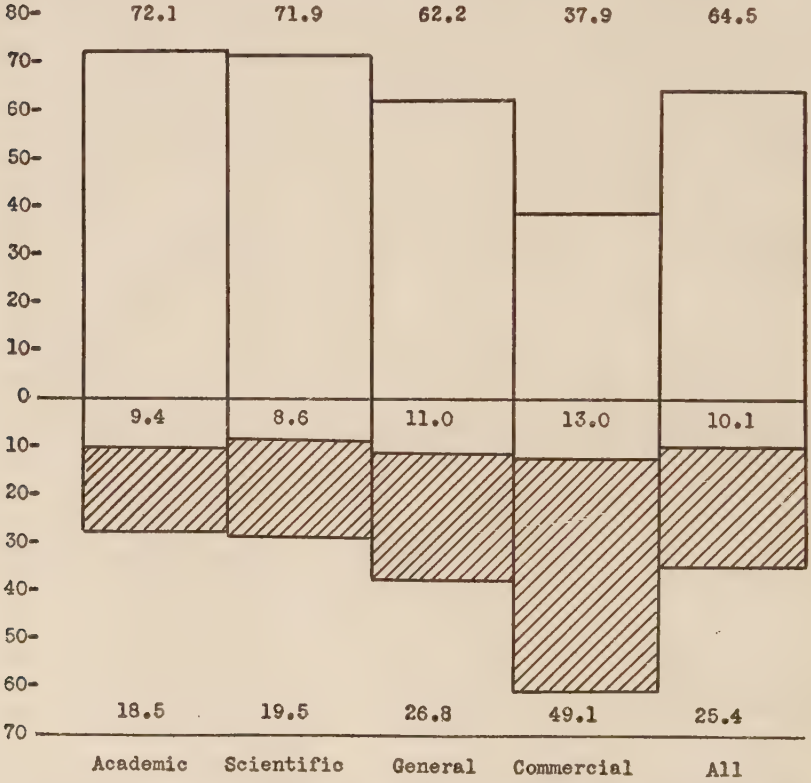

Fig. 5.—Percentages of Juniors and Seniors in the different curriculums who plan or do not plan to continue their education after graduation from high school. (To continue education, above dividing line; no answer or undecided, unshaded portions below the line; not going to college, shaded portions.)

19 Pp. 42 and 46.
20 Table 37, p. 89.

X, there is little if any relationship between socio-economic status and the subjects pupils take in these grades. The same line of reasoning applies to the relationship between subjects and country of birth of fathers and between subjects and intelligence.

In the Junior and Senior years, however, in which electives are available, such factors as socio-economic status, country of birth of fathers, and intelligence may have a bearing on the subjects pupils take. In presenting data to show what relationship exists between these three factors and subjects, only mathematics, foreign languages, and commercial subjects are considered. The data are given only for Seniors, as the relationship between socio-economic status, country of birth of fathers, and intelligence of the Juniors and the subjects they take point in the same direction as for the Seniors.

Units in subject-fields taken.—All Seniors in all curriculums take religion, English, Latin, mathematics, science, and social studies. The amount of religion taken is the equivalent of two, three, or four units, depending upon the number of days a week the subject is taught in the different schools. All except commercial pupils take four or more years of English, and those in the commercial curriculum who take three years of regular English take a unit in business English. In the academic curriculum all pupils take at least two years of Latin and half of them take three or four. In the scientific curriculum two years of Latin are taken by eight in ten boys, and this is true of the general-curriculum pupils also. Practically all commercial pupils take two years of Latin, but these boys do not, save in exceptional cases, take modern foreign languages, two years of which are taken by more than half the pupils in the other curriculums. In the academic curriculum more than 50 per cent of the boys take three or more units in mathematics, and in the scientific curriculum all pupils take three or more. In the general and commercial curriculums the pupils in almost all cases take two years of mathematics.

Two or more units of science are taken by almost all boys in the academic, scientific, and general curriculums, and one unit is the most common requirement for commercial pupils.

There is considerable scatter in the number of units taken in the social studies. Approximately two-thirds of the academic and scientific curriculum pupils take three or more units.

Some commercial work is taken by 36.1 per cent of academic pupils, by 22.0 per cent of those in the scientific curriculum, by 63.8 per cent of those in the general curriculum, and by 100 per cent of those in the commercial curriculum. Three or more units of commercial work are ordinarily taken by pupils following the commercial curriculum, and the usual number carried by boys in other curriculums is one.

As has been mentioned in a previous chapter,[21] practical arts, drawing, and the plastic arts are not offered in many Catholic high schools of this study. Music is offered by almost all schools, and more than 25 per cent of the boys take it,[22] but as credit is not given in many schools, the number of pupils earning scholastic credit in music are few.

Relationship between factors and the number of units in mathematics.—The relationship between socio-economic status, intelligence, and country of birth of fathers and the number of units in mathematics taken by Seniors is presented in Table 85. As two units were required in almost all the twenty-one schools, relationship between factors and the number of units taken is more evident in considering the percentages of Seniors taking three or more units.

Pupils whose fathers are in the higher economic brackets take more mathematics than children of the "manual" group, the range of the percentages taking three or more units being from 48.4 for the "manual" group to 62.2 for the professional group.

The relationship between high mental ability and the number of units of mathematics is marked. Almost three-fourths (73.2 per cent) of the pupils with intelligence quotients in the fourth quarter take three or more units of mathematics, but slightly less than a third (32.9 per cent) of those with intelligence quotients in the first or lowest quarter take three or more units.

There is very slight relationship between country of birth of fathers and the number of units of mathematics pupils take. Fifty-four per cent of the pupils whose fathers were born in the United States take three or more units, and 52.5 per cent of the pupils whose fathers were born in other countries carry the same number of units.

Relationship between factors and the number of units in foreign language.—The relationship between socio-economic status, intelligence,

21 Chapter III, pp. 46-47.
22 Table 20, p. 45.

and country of birth of fathers and the number of units of foreign language taken by Seniors, presented in Table 86, is, in general, similar to that between the number of units of mathematics taken by Seniors and these factors. There is positive relationship between socio-economic status and the number of units of foreign language taken and between high intelligence and the amount of foreign language carried by Seniors. The percentage of pupils whose fathers were born in the United States and who took four or more units of foreign language is somewhat smaller than the percentage for pupils whose fathers were born in other countries.

Relationship between factors and the number of units in commercial subjects.—The relationship between socio-economic status, intelligence, and country of birth of fathers and the number of units in commercial subjects is shown in Table 87. The percentages of Seniors taking no commercial work are 64.9 for the professional group and 48.4 for the

TABLE 85

RELATIONSHIP BETWEEN THE FACTORS OF SOCIO-ECONOMIC STATUS, INTELLIGENCE, AND COUNTRY OF BIRTH OF FATHERS AND THE NUMBER OF UNITS IN MATHEMATICS TAKEN BY SENIORS

Factors	Number of Units in Mathematics					
	0.0-1.9		2.0-2.9		3 or More	
	Number	Percentage	Number	Percentage	Number	Percentage
Socio-economic status:						
Proprietary	....	....	39	41.1	56	58.9
Professional	....	....	14	37.8	23	62.2
Managerial	....	....	41	39.4	63	60.6
Commercial-Clerical	....	....	46	47.4	51	52.6
Manual	....	....	114	51.6	107	48.4
Unknown	....	....	25	55.6	20	44.4
*Intelligence:**						
Fourth quarter	....	....	42	26.8	115	73.2
Third quarter	....	....	68	45.0	83	55.0
Second quarter	....	....	62	46.6	71	53.4
First quarter	....	....	106	67.1	52	32.9
Country of birth of fathers:						
United States	....	....	201	46.0	236	54.0
Other countries	....	....	77	47.5	85	52.5

* See note under Table 81, p. 170.

TABLE 86

RELATIONSHIP BETWEEN THE FACTORS OF SOCIO-ECONOMIC STATUS, INTELLIGENCE, AND COUNTRY OF BIRTH OF FATHERS AND THE NUMBER OF UNITS OF FOREIGN LANGUAGE TAKEN BY SENIORS

Factors	Number of Units in Foreign Language							
	0.0-1.9		2.0-2.9		3.0-3.9		4 or More	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Socio-economic status:								
Proprietary	....	....	35	36.8	10	10.5	50	52.6
Professional	....	....	11	29.7	3	8.1	23	62.2
Managerial	....	....	41	39.4	11	10.6	52	50.0
Commercial-Clerical	....	....	34	35.1	10	10.3	53	54.6
Manual	....	....	92	41.6	24	10.9	105	47.5
Unknown	....	....	20	44.4	2	4.4	23	51.1
*Intelligence:**								
Fourth quarter	....	....	45	28.7	10	6.4	102	65.0
Third quarter	....	....	59	39.1	17	11.3	75	49.7
Second quarter	....	....	64	48.1	6	4.5	63	47.4
First quarter	....	....	65	41.1	27	17.1	66	41.8
Country of birth of fathers:								
United States	....	....	172	39.4	45	10.3	220	50.3
Other countries	....	....	61	37.7	15	9.3	86	53.1

* See note under Table 81, p. 170.

"manual" group. On the other hand, the percentages for these two groups taking three or more units are 5.4 and 21.3, respectively. There is some relationship between socio-economic status and the number of units of commercial work taken by Seniors.

Almost three-fourths (71.3 per cent) of the Seniors whose intelligence quotients are in the fourth quarter have not taken any commercial work, but only two-fifths (39.9 per cent) of those whose intelligence quotients are in the lowest quarter have not carried commercial subjects. Only 8.9 per cent of the pupils with intelligence quotients in the highest quarter have taken three or more units of commercial work, but 22.8 per cent of the lowest-quarter pupils have taken three or more units. In general, the higher the intelligence, the fewer units of commercial work were taken.

The percentages of pupils whose fathers were born in the United States and who did not take any commercial work or who took three or

TABLE 87

RELATIONSHIP BETWEEN THE FACTORS OF SOCIO-ECONOMIC STATUS, INTELLIGENCE, AND COUNTRY OF BIRTH OF FATHERS AND THE NUMBER OF UNITS IN COMMERCIAL SUBJECTS TAKEN BY SENIORS

Factors	Number of Units in Commercial Subjects									
	None		0.1-0.9		1.0-1.9		2.0-2.9		3 or More	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Socio-economic status:										
Proprietary	48	50.5	3	3.2	29	30.5	7	7.4	8	8.4
Professional	24	64.9	.....	.....	10	27.0	1	2.8	2	5.4
Managerial	57	54.8	2	1.9	24	23.1	10	9.6	11	10.6
Commercial-Clerical	55	56.7	2	2.1	15	15.5	10	10.3	15	15.5
Manual	107	48.4	4	1.8	34	15.4	29	13.1	47	21.3
Unknown	18	40.0	.....	.....	8	17.8	8	17.8	11	24.4
*Intelligence:**										
Fourth quarter	112	71.3	1	0.6	22	14.0	8	5.1	14	8.9
Third quarter	75	49.7	2	1.3	41	27.2	15	9.9	18	11.9
Second quarter	59	44.4	4	3.0	25	18.8	19	14.3	26	19.5
First quarter	63	39.9	4	2.5	32	20.3	23	14.6	36	22.8
Country of birth of fathers:										
United States	217	49.7	7	1.6	96	22.0	55	12.6	62	14.2
Other countries	92	56.8	4	2.5	24	14.8	10	6.2	32	19.8

* See note under Table 81, p. 170.

more units are smaller in each case than the percentages for pupils whose fathers were born in other countries, although the differences in percentages are not large.

RELATIONSHIP BETWEEN THE DIFFERENT FACTORS

Educational plans and intelligence. — Boys of mediocre and low mental ability go to college together with the mentally equipped, and many who are qualified from an intellectual point of view to do good work in colleges and universities do not get there, or, at least, do not plan to enter. These facts are brought out in Table 88 in which are given the educational plans of pupils in the different curriculums in relation to their intelligence. Pupils in all four quarters of mental ability plan to go to college.

In the academic curriculum, of pupils who plan to continue their studies in four-year colleges and universities, 64.4 per cent have intelligence quotients above the median intelligence quotient for all Juniors and Seniors. In the scientific curriculum the percentage is 65.1; in the general curriculum, 39.1; and in the commercial curriculum, 37.5.

In all curriculums, the numbers of pupils who plan to continue going to school in business colleges, technical schools, or night schools are small. More than 60 per cent of those who intend to enter such schools have intelligence quotients below the median.

Pupils who are undecided about going to school after graduation from high school are about equally divided among the four quarters of mental ability.

Fifty per cent of those in the academic curriculum and 51.3 per cent of those in the scientific curriculum who do not plan to enter colleges and universities have intelligence quotients above the median. These pupils, or at least those in the upper quarter, could profit from work in college.

Of the 607 boys in the academic curriculum, 165, including those who intend to enter other schools, definitely do not intend to go to college. Of these, 89 (14.7 per cent of all following the academic curriculum) have intelligence quotients below the median for all Juniors and Seniors.

Of the 210 boys in the scientific curriculum, 60 do not intend to enter college, and of these, 33 (15.7 per cent of all following the scien-

TABLE 88

RELATIONSHIP BETWEEN THE EDUCATIONAL PLANS AND MENTAL ABILITY OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS

Educational Plans	Fourth Quarter		Third Quarter		Second Quarter		First Quarter		All	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Academic curriculum:										
College or university	146	37.9	102	26.5	71	18.4	66	17.1	385	99.9
Other schools	9	17.0	11	20.8	15	28.3	18	33.9	53	100.0
Not going to college	26	23.2	30	26.8	24	21.4	32	28.6	112	100.0
Undecided or no answer	15	26.3	15	26.3	14	24.6	13	22.8	57	100.0
Scientific curriculum:										
College or university	45	34.1	41	31.0	29	22.0	17	12.9	132	100.0
Other schools	2	10.5	4	21.1	8	42.1	5	26.3	19	100.0
Not going to college	4	9.8	17	41.5	14	34.1	6	14.6	41	100.0
Undecided or no answer	6	33.3	6	33.3	4	22.2	2	11.1	18	99.9
General curriculum:										
College or university	6	8.7	21	30.4	18	26.1	24	34.8	69	100.0
Other schools	2	20.0	4	40.0	1	10.0	3	30.0	10	100.0
Not going to college	.....	.....	6	17.6	10	29.4	18	52.9	34	99.9
Undecided or no answer	2	14.3	3	21.4	5	35.7	4	28.6	14	100.0
Commercial curriculum:										
College or university	10	15.6	14	21.9	17	26.6	23	35.9	64	100.0
Other schools	2	9.5	5	23.8	7	33.3	7	33.3	21	99.9
Not going to college	19	17.3	25	22.7	28	25.5	38	34.5	110	100.0
Undecided or no answer	7	24.1	2	6.9	8	27.6	12	41.4	29	100.0

tific curriculum) have intelligence quotients below the median for all Juniors and Seniors.

In the general curriculum only 17.6 per cent of the pupils not going to college have intelligence quotients above the median and these pupils are all in the third quarter. In the commercial curriculum 40.0 per cent of those not going to college are in the upper two quarters, 17.3 per cent being in the fourth quarter.

The relation between the mental ability of boys in the different curriculums and their educational plans is brought out more clearly in Figure 6. This relationship is most apparent with regard to boys in the academic curriculum, possibly because of the larger number of cases. Approximately three-fourths (74.5 per cent) of those with intelligence quotients in the highest quarter plan to go to college, and the percentages decrease in order for pupils in the third, second, and first quarters. Slightly more than half (51.2 per cent) of those in the lowest quarter expect to enter college. The percentages of those who plan to enter other types of schools, and of those who do not intend to enter college or who are undecided or do not give an answer, steadily increase from the highest to the lowest quarter.

In the scientific curriculum the same tendencies are present with the exception of pupils in the first quarter: more of these pupils expect to enter college than do pupils in the second quarter.

In the general curriculum more pupils of the fourth and third quarters than of the first and second plan to enter types of schools other than colleges. The relation between college entrance plans and intelligence is, however, not so clear-cut as in the case of the pupils in the academic and scientific curriculums.

Pupils in the commercial curriculum apparently take their high-school work to prepare for occupations immediately after graduation from high school, as not a third of these pupils from any quarter plan to enter college. There is little relation, if any, between college educational plans and mental ability in the case of commercial-curriculum pupils. Fewer of these in the highest quarter plan to enter college than do corresponding groups in the other three curriculums.

There is a distinct relationship between high mental ability and plans to enter college, and this relationship exists for pupils, in general, who actually attend college. Proctor found that the median intelligence

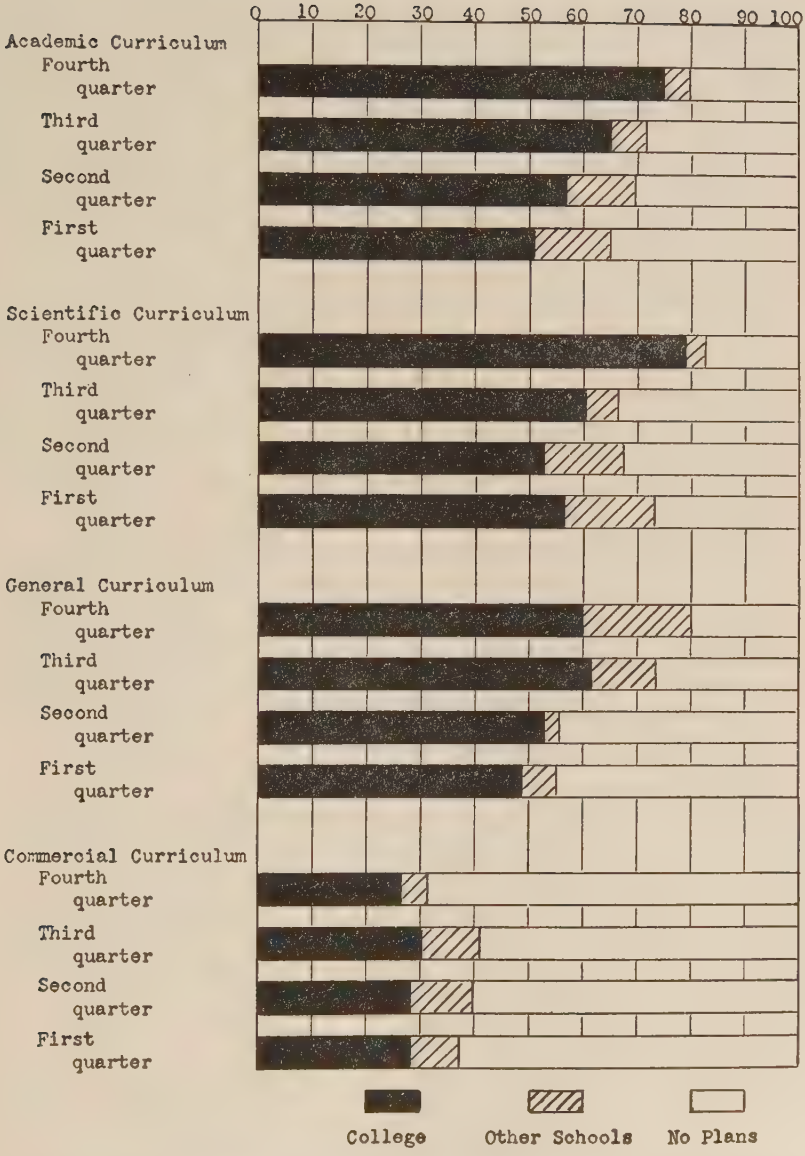

Fig. 6.—Percentages of Juniors and Seniors in the four curriculums with intelligence quotients in each of the four quarters and with different educational plans.

quotient of the high school graduates who entered college was 116 while that of graduates not going on to college was 111.[23]

Educational plans and achievement.—Fewer pupils earn A's than B's or C's in the Catholic high schools of this study,[24] and, therefore, it cannot be expected that greater numbers of pupils receiving A's will go to college than of those receiving B's or C's. But there is some relation between achievement as measured by the average of school marks and educational plans. This relation is brought out in Table 89.

Of pupils in the academic curriculum, 49.2 per cent earned average marks of A or B in the subjects they carried in high school.[25] Of academic-curriculum pupils expecting to enter college, 55.1 per cent earned average marks of A or B. Of those not planning to enter college, 35.7 per cent earned marks of A or B. Of the 165 boys in the academic curriculum who either are not going to college or intend to enter other schools, 104 (17.1 per cent of the 607 following the academic curriculum) earned average marks of C, D, or F.

In the scientific curriculum, 44.2 per cent of the pupils earned an average mark of A or B[26] in their high school work, and 46.2 per cent of those planning to enter colleges or universities have average marks of A or B. Only 31.7 per cent of those earning these marks do not plan to go to college. In the scientific curriculum, forty boys who do not intend to go to college (19.0 per cent of all following the curriculum) have received average marks of C, D, or F.

The evidence concerning pupils in the academic and scientific curriculums presented in this table is somewhat confusing and makes the drawing of conclusions difficult. It may be said, however, that pupils with average achievement marks of A, B, C, or D, plan to go to college in large numbers, but the low marks seem to bear some relation to pupils not planning to enter college. On the other hand, high marks have some relation to plans to enter college. Undoubtedly other factors enter in.

In the general curriculum, 18.1 per cent of the pupils earned average marks of A or B,[27] and 18.8 per cent of those planning to go to

23 Proctor, *The Use of Psychological Tests in the Educational and Vocational Guidance of High School Pupils*, p. 23.

24 Table 82, p. 173.

25 Table 82, p. 173.

26 Table 82, p. 173.

27 Table 82, p. 173.

TABLE 89

RELATIONSHIP BETWEEN THE AVERAGE ACHIEVEMENT MARKS AND EDUCATIONAL PLANS OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS.

Educational Plans	A		B		C		D		F	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Academic curriculum:										
College or university	47	12.2	165	42.9	125	32.5	44	11.4	4	1.0
Other schools	3	5.7	18	33.9	20	37.7	11	20.8	1	1.9
Not going to college	7	6.3	33	29.4	44	39.3	24	21.4	4	3.6
Undecided or no answer	5	8.8	21	36.8	20	35.1	11	19.3	.....	.....
Scientific curriculum:										
College or university	19	14.4	42	31.8	45	34.1	25	18.9	1	0.8
Other schools	1	5.3	6	31.5	4	21.1	8	42.1	.....	.....
Not going to college	1	2.4	12	29.3	14	34.1	13	31.7	1	2.4
Undecided or no answer	3	16.7	9	50.0	5	27.7	1	5.6	.....	.....
General curriculum:										
College or university	2	2.9	11	15.9	28	40.6	26	37.7	2	2.9
Other schools	.....	.....	2	20.0	5	50.0	3	30.0	.....	.....
Not going to college	.....	.....	2	5.9	10	29.4	22	64.7	.....	.....
Undecided or no answer	.....	.....	6	42.9	5	35.7	3	21.4	.....	.....
Commercial curriculum:										
College or university	2	3.1	29	45.3	25	39.1	8	12.5	.....	.....
Other schools	.....	.....	6	28.6	9	42.8	6	28.6	.....	.....
Not going to college	5	4.5	34	30.9	36	32.7	31	28.2	4	3.6
Undecided or no answer	1	3.4	7	24.1	15	51.7	5	17.2	1	3.4

college earned these same marks. Of pupils not expecting to go to college 94.1 per cent had averaged marks of C or D. In this curriculum low marks do have a distinct relation to a pupil's decision not to go to college, although other factors have a bearing on intentions to enter college.

In the commercial curriculum 37.5 per cent of the pupils received average marks of A or B,[28] and 48.4 per cent of those who expect to enter college earned these same marks. Of pupils not planning to go to college, 60.9 per cent received average marks below B. High marks have a slight relation to some pupils' intention to enter college and low marks have a slight bearing on others not planning to enter.

The relationship between educational plans and achievement in high-school work is brought out more clearly in Figure 7. In the academic curriculum slightly more than three-fourths (75.8 per cent) of those receiving marks of A plan to go to college, and there is a steady decline in college entrance plans of those receiving marks of B, C, or D, the percentages for each group respectively being 69.6, 59.8, and 48.9. There is an inverse ratio between average marks of A, B, or C and plans to enter other types of schools; that is, the higher the achievement marks, the lower the percentages of pupils who plan to enter other types of schools. The same kind of ratio exists between average achievement marks and plans not to enter college. The percentages of pupils not planning to enter college with average marks of A, B, C, or D are 19.3, 22.8, 30.6, and 38.8 respectively.

Pupils whose averages of all achievement marks were below the passing mark are not represented in the figure as the numbers of cases are small.

In the scientific curriculum, the relationship between achievement and educational plans is much the same as for pupils in the academic curriculum, but there is more irregularity, probably because the number of cases is not so large as for the academic curriculum.

In the general and commercial curriculums there are no manifest relationships between educational plans and achievement. Probably other factors, such as socio-economic status, vocational plans, etc., have more bearing on the educational plans of pupils in these two curriculums than do achievement marks.

28 Table 82, p. 173.

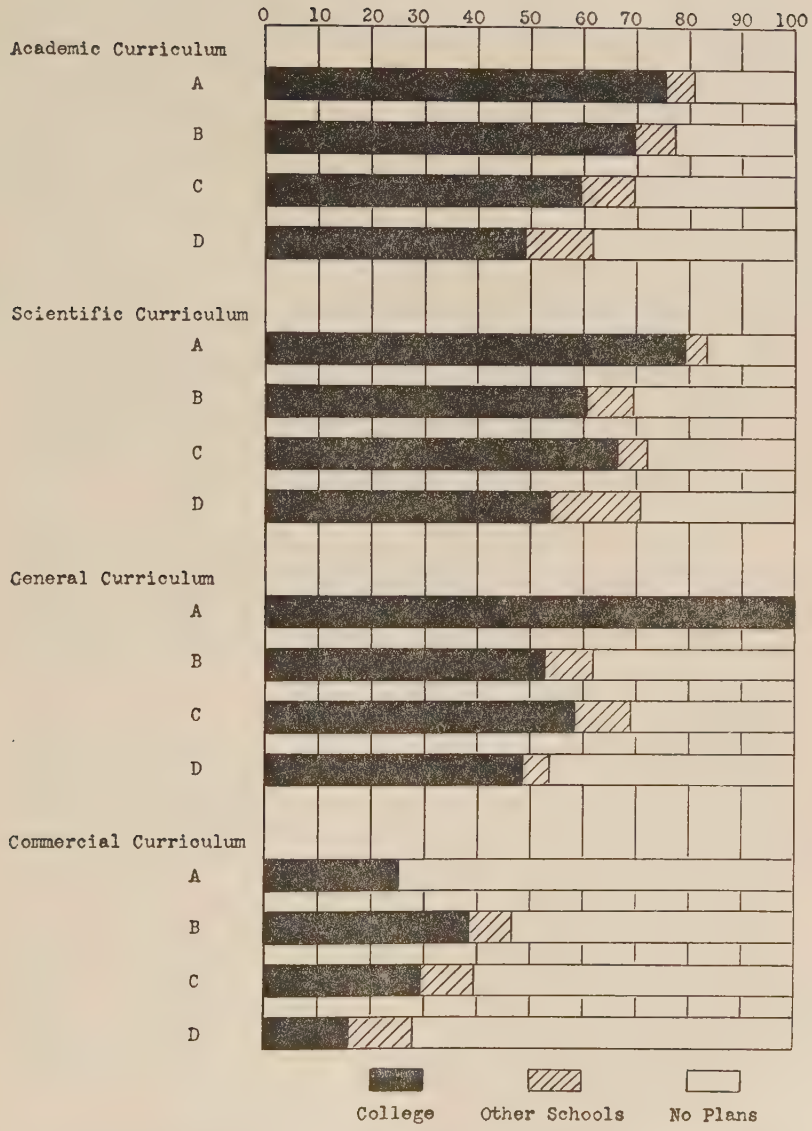

Fig. 7.—Percentages of Juniors and Seniors in the four curriculums with average marks of A, B, C, or D and with different educational plans.

Educational plans and vocational plans.—There is a direct relationship between some of the vocational plans of pupils and their educational plans, and this is especially evident in their intentions to enter college, as is represented in Table 90. Almost all those who wish to enter the professions, including engineering, also plan to go to college. The types of work included under "professions" are those mentioned

TABLE 90

RELATIONSHIP BETWEEN THE EDUCATIONAL AND VOCATIONAL PLANS OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS

Vocational Plans	College or University		Other Schools		Not Continue Education		No Answer or Undecided	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Academic curriculum:								
Professions	252	92.3	5	1.8	4	1.5	12	4.4
Owners-Managers	19	65.5	1	3.4	5	17.2	4	13.8
Commercial-Clerical	39	43.8	19	21.3	23	25.8	8	9.0
Manual work	14	15.6	21	23.3	48	53.3	7	7.8
Work, unspecified	....	....	2	12.5	11	68.7	3	18.8
No plans	61	55.5	5	4.5	21	19.1	23	20.9
Scientific curriculum:								
Professions	101	91.8	5	4.5	3	2.7	1	0.9
Owners-Managers	5	50.0	2	20.0	2	20.0	1	10.0
Commercial-Clerical	10	38.5	6	23.1	5	19.2	5	19.2
Manual work	4	12.9	3	9.7	20	64.5	4	12.9
Work, unspecified	....	....	....	....	6	85.7	1	14.3
No plans	12	46.2	3	11.5	5	19.2	6	23.1
General curriculum:								
Professions	35	83.3	4	9.5	....	....	3	7.1
Owners-Managers	7	70.0	1	10.0	2	20.0	....	....
Commercial-Clerical	11	42.3	3	11.5	11	42.3	1	3.8
Manual work	5	19.2	1	3.8	16	61.5	4	15.4
Work, unspecified	....	....	1	16.7	4	66.6	1	16.7
No plans	11	64.7	....	....	1	5.8	5	29.4
Commercial curriculum:								
Professions	19	67.9	1	3.6	6	21.4	2	7.1
Owners-Managers	5	31.2	....	....	8	50.0	3	18.8
Commercial-Clerical	33	34.0	14	14.4	43	44.3	7	7.2
Manual work	1	2.6	5	13.2	28	73.7	4	10.5
Work, unspecified	....	....	1	4.0	20	80.0	4	16.0
No plans	6	30.0	....	....	5	25.0	9	45.0

by Counts.[29] For some of these callings preparation in a college or professional school is not necessary.

In the academic, scientific, and general curriculums, there is a steady decrease in the percentages of pupils expecting to go to college for the groups from professions to "manual" work, and a steady increase in the percentages not going to college. In the commercial curriculums the same trend is noticeable, but it is not so constant.

Ninety boys in the academic and thirty-one in the scientific curriculum intend to become skilled, semi-skilled, or unskilled workers. Of these, sixty-nine in the former and twenty-three in the latter curriculum (more than 10 per cent of those taking these curriculums) do not plan to enter college. Some, however, intend to continue their education in some other type of school.

Slightly more than 20 per cent of academic-curriculum boys who plan to enter commercial-clerical service intend to continue studying in some other type of school than a four-year college. Almost a fourth (23.3 per cent) of the academic-curriculum pupils who plan to do "manual" work intend to continue their training in a school on the secondary level, and, for the most part, they expect to enter either technical schools or night schools.

The numbers in the other curriculums who plan to continue their education in institutions other than colleges are too small to indicate trends. But the question arises as to the probable reason that so many boys in the commercial curriculum who plan to enter commercial service do not intend to take up more work in business schools. Possibly they believe that the amount of training they are receiving is sufficient.

The large percentages of pupils in all curriculums who have no vocational plans but who intend to enter college is very probably due to the fact that they regard college as their immediate work, during the course of which they can decide on an occupational calling. As much of college work in the different departments, with the exception of those in science and engineering, is usually a continuation of general education, these pupils will have the opportunity of deciding on a vocational choice before beginning specialization in the third year of college.

Educational plans and socio-economic status.—If socio-economic

29 Counts, *The Selective Character of American Secondary Education*, pp. 22-23.

status has a bearing on the relative numbers of pupils in high school from the different occupational groups, it may be assumed that the relationship between socio-economic status and continuing education after high school graduation will be even more pronounced. Counts found that boys from all occupational groups plan to enter college, but the percentages are higher from the higher economic levels.[30] The same tendency exists in the Catholic high schools of this study as is shown in Table 91 in which is presented the relationship between socio-economic status of pupils and their educational plans. In all four curriculums sons whose fathers are in professional, proprietary, managerial, commercial, and clerical service, intend to go to college in greater percentages than sons whose fathers are in the "manual" group. Excluding the "unknown" group, the percentage of pupils planning to enter colleges ranges in the academic curriculum from 48.8 for the "manual" group to 90.7 for the professional group; in the scientific curriculum, from 56.8 for the "manual" group to 81.6 for the proprietary group; in the general curriculum, fom 30.4 for the "manual" group to 87.5 for the professional group; and in the commercial curriculum, fom 19.1 for the "manual" group to 57.1 for the professional group.

Pupils following the commercial curriculum do not plan to go to college in the same proportions as boys in other curriculums, and this, in general, holds for sons from all occupational groups.

In interpreting the table it must be borne in mind that colleges or universities are located in all except two of the cities in which the high schools of this study are located. This fact, as was pointed out earlier,[31] undoubtedly has a direct influence on the numbers planning to go to college, especially from the lower economic levels.

Sons of all occupational groups plan to enter other types of schools — business, technical, night, and art — and the percentages are greater, in general, for the lower occupational levels.

Vocational plans and intelligence.—The mental ability of pupils in the twenty-one schools bears relationship to their choice of occupation, as is shown in Table 92. This relationship is apparent in the case of pupils in the academic and scientific curriculums, but it is not so pronounced with regard to those in the general and commercial curricu-

30 *Ibid.*, p. 84.
31 P. 100.

TABLE 91

RELATIONSHIP BETWEEN THE EDUCATIONAL PLANS OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS AND THE SOCIO-ECONOMIC STATUS OF THEIR FATHERS

Socio-Economic Status of Fathers	College or University		Other Schools		Not Continue Education		No Answer or Undecided	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Academic curriculum:								
Proprietary	74	77.1	9	9.4	7	7.3	6	6.2
Professional	39	90.7	1	2.3	1	2.3	2	4.7
Managerial	81	75.0	5	4.6	16	14.8	6	5.6
Commercial-Clerical	61	63.5	8	8.3	19	19.8	8	8.3
Manual	109	48.8	28	12.6	59	26.5	27	12.1
Unknown	21	51.2	2	4.9	10	24.4	8	19.5
Scientific curriculum:								
Proprietary	31	81.6	1	2.6	3	7.9	3	7.9
Professional	7	77.8	....	....	2	22.2	....	....
Managerial	23	62.2	3	8.1	9	24.3	2	5.4
Commercial-Clerical	20	58.8	2	5.9	9	26.5	3	8.8
Manual	46	56.8	12	14.8	13	16.0	10	12.3
Unknown	5	45.4	1	9.1	5	45.4	....	....
General curriculum:								
Proprietary	17	65.4	4	15.4	3	11.5	2	7.7
Professional	7	87.5	1	12.5	....	....	....	....
Managerial	9	60.0	....	....	5	33.3	1	6.7
Commercial-Clerical	20	74.1	1	3.7	4	14.8	2	7.4
Manual	14	30.4	4	8.7	20	43.5	8	17.4
Unknown	2	40.0	....	....	2	40.0	1	20.0
Commercial curriculum:								
Proprietary	6	30.0	....	....	10	50.0	4	20.0
Professional	4	57.1	....	....	2	28.6	1	14.3
Managerial	10	38.5	2	7.7	13	50.0	1	3.8
Commercial-Clerical	17	42.5	4	10.0	17	42.5	2	5.0
Manual	21	19.1	12	10.9	59	53.6	18	16.4
Unknown	6	28.6	3	14.3	9	42.8	3	14.3

lums. In these latter two curriculums, however, the numbers of pupils with the various vocational plans, with one or two exceptions, are not large, and more than 60 per cent have intelligence quotients below the median for all Juniors and Seniors who were given intelligence tests.

In the academic curriculum there is a steady decrease in the percentages of pupils in the highest quarter of intelligence with vocational plans ranging from engineers to the "manual" group. The percentages

TABLE 92

RELATIONSHIP BETWEEN THE VOCATIONAL PLANS AND THE MENTAL ABILITY OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS

Vocational Plans	Fourth Quarter		Third Quarter		Second Quarter		First Quarter	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Academic curriculum:								
Professions	80	37.7	52	24.5	47	22.2	33	15.6
Engineering	26	42.6	18	29.5	7	11.5	10	16.4
Owners-Managers	9	31.0	7	24.1	6	20.7	7	24.1
Commercial-Clerical	23	25.8	25	28.1	16	18.0	25	28.1
Manual	17	18.9	21	23.3	28	31.1	24	26.7
Work, unspecified	5	31.2	4	25.0	3	18.8	4	25.0
No plans	36	32.7	31	28.2	17	15.5	26	23.5
Scientific curriculum:								
Professions	13	39.4	7	21.2	7	21.2	6	18.2
Engineering	25	32.4	24	31.2	18	23.4	10	13.0
Owners-Managers	3	30.0	4	40.0	1	10.0	2	20.0
Commercial-Clerical	4	15.3	10	38.5	10	38.5	2	7.7
Manual	5	16.1	12	38.7	7	22.6	7	22.6
Work, unspecified	....	....	4	57.1	3	42.9	....	....
No plans	7	26.9	7	26.9	9	34.6	3	11.5
General curriculum:								
Professions	3	8.6	7	20.0	9	25.7	16	45.7
Engineering	1	14.3	3	42.8	1	14.3	2	28.6
Owners-Managers	1	10.0	1	10.0	3	30.0	5	50.0
Commercial-Clerical	1	3.8	11	42.3	6	23.1	8	30.8
Manual	2	7.7	5	19.2	11	42.3	8	30.8
Work, unspecified	....	....	2	33.3	1	16.7	3	50.0
No plans	2	11.8	5	29.4	3	17.6	7	41.2
Commercial curriculum:								
Professions	3	11.5	8	30.8	6	23.1	9	34.6
Engineering	....	....	1	50.0	1	50.0	....	....
Owners-Managers	2	12.5	5	31.2	5	31.2	4	25.0
Commercial-Clerical	18	18.6	19	19.6	26	26.8	34	35.0
Manual	6	15.8	5	13.2	10	26.3	17	44.7
Work, unspecified	6	24.0	5	20.0	6	24.0	8	32.0
No plans	3	15.0	3	15.0	6	30.0	8	40.0

of pupils selecting the different vocational fields and having intelligence quotients in the fourth or third quarter are as follows: engineering, 72.1; professions, 62.2; no plans (many going to college), 60.9; work, unspecified, 56.2; owners or managers, 55.1; commercial-clerical, 53.9; and "manual," 42.2.

The percentages of pupils in the scientific curriculum with different vocational expectations follow, in general, the trend pointed out in the academic curriculum: as groups, greater percentages of pupils with intelligence quotients above the median intend to follow the "white-collar" jobs rather than work manual in nature.

In the general and commercial curriculums the percentages of pupils with various vocational plans and with intelligence quotients below the median exceed fifty in all instances, except for pupils who expect to enter engineering.

It is evident that pupils of all mental abilities choose the different occupational fields, and pupils with high intelligence quotients enter the academic and scientific curriculums in large numbers, while those with low intelligence quotients enroll in the general and commercial curriculums. The heavy percentages in the first quarter in each occupational field in the general and commercial curriculums indicate that pupils of low mental ability do not prefer one vocational field to another and choose a curriculum other than the academic or scientific.

In other studies similar data on the relation between vocational plans of pupils and their intelligence, and on the actual occupations of former pupils and their intelligence, have been reported. Book found among Indiana high-school Seniors that the brightest chose science and engineering as the vocations they would follow.[32] As for specific occupations, Book reported that boys planning to enter the ministry, journalism, or science ranked intellectually above other occupational groups, and those selecting medicine, business, or farming ranked lowest.[33]

But the relation between intelligence and actual occupations is more clear-cut than between vocational plans and intelligence. Proctor found that the intelligence quotients of persons in the professions, in the semi-professions, or in skilled, semi-skilled, and unskilled work were, respectively, 115.0, 108.1, 104.1, 99.3, and 97.4.[34] Moore also found that the percentages of former pupils with intelligence quotients above the

32 William F. Book, *The Intelligence of High School Seniors as Revealed by a Statewide Mental Survey of Indiana High Schools*, p. 141. New York: Macmillan Co., 1922.

33 *Ibid.*

34 William Martin Proctor, "Intelligence and Length of Schooling in Relation to Occupational Levels," *School and Society*, XLII (December 7, 1935), 786.

mean steadily decreased for those engaged in professional, business-clerical, skilled, semi-skilled, or unskilled labor.[35] He concluded that intelligence is a factor in occupational choice.[36]

Vocational plans and socio-economic status.—The evidence presented in Table 93 in which the broad vocational plans of pupils are set off against the occupations of their fathers shows that, in general, pupils plan to rise above the occupational levels of their fathers, and this is especially true for boys whose fathers are in the lower economic brackets. In each of the four curriculums the percentages of pupils from the different socio-economic levels choosing the "white-collar" jobs are greater than 50 per cent.

The children following the commercial curriculum may be taken to illustate the relationship between vocational plans and socio-economic status in the higher economic levels, and the lack of such relationship in the lower economic groups. In each group the percentages given are for pupils planning to enter the higher vocational callings. The percentages are: 73.9 per cent of the children of proprietors and managers; 70.0 per cent of the children of commercial-clerical workers; 58.1 per cent of children of "manual" workers; 57.2 per cent of children of professional workers (four cases); and 52.4 per cent of the "unknown" group.

Pupils whose fathers are in the higher socio-economic brackets do not altogether plan to follow in the footsteps of their fathers, and few expect to take up work classed as "manual." Except in professional service groups, there is not much relationship between fathers' occupations and the vocational plans of sons.

Variations between the vocational plans of pupils and the occupations of their fathers are reported in various other studies. Madsen showed that 39 per cent of the fathers of 3,432 boys in Omaha high schools were engaged in skilled, semi-skilled, or unskilled labor, but only 10 per cent of the pupils chose these fields of work; on the other hand, only 16 per cent of the fathers were engaged in professional pursuits, but 61 per cent of the boys had ambitions to enter professional callings.[37] Hurd reported the same tendency among 1,938 pupils in

35 Allen Ray Moore, "The Intelligence of High-School Pupils and the Nature of Their Occupations After the Period of Formal Schooling," p. 63. Unpublished Master's thesis, Department of Education, University of Chicago, 1934.

36 *Ibid.*

37 Madsen, *op. cit.*, p. 694.

seven high schools in Minnesota, Ohio, and Illinois.[38] The five highest occupational choices for boys in order of rank were aviation, chemistry, medicine, engineering, and law, with engineering in first place if all types of engineering were considered; but the five most frequently mentioned types of work in which the fathers were engaged were business, salesmanship, factory work, mechanics, and clerical service.[39] Counts found a slight tendency for boys to follow in the footsteps of their fathers in the matter of occupations, but he went on to say that most of the boys looked on high-school education as a means of raising themselves out of the class into which they were born.[40] Hurlock and Jansing reported that more than three-fourths of boys chose occupations other than those of their fathers.[41]

Mental ability and achievement. — Achievement in the different subjects is dependent, to a great extent, upon above-average intelligence, as the data presented in Table 94 on the relationship between intelligence and achievement show.

In the academic curriculum pupils whose intelligence quotients are in the highest quarter earned average marks of A, B, C, or D, and the same is true of pupils with intelligence quotients in the lowest quarter. But the percentages of pupils in the different quarters earning these marks vary. Approximately twenty-two pupils in a hundred whose intelligence quotients were in the highest quarter earned average marks of A, but only about two in a hundred of those whose intelligence quotients were in the lowest quarter earned average marks of A. Conversely, more than thirty-three pupils in a hundred in the lowest quarter of intelligence earned marks of D, while slightly more than five in a hundred in the highest quarter received that mark. In the other curriculums the same general trend is noticeable. Pupils with low mental ability earn the low average marks, and those with high intelligence earn the high average ones. Not one pupil whose intelligence quotient is in the highest quarter received average marks below the passing mark. Some Juniors and Seniors, the average of whose marks is below the

38 A. W. Hurd, "Curriculum Revision to Meet the Needs of High School Pupils," *School Science and Mathematics*, XXXIV (June, 1934), 636-42.

39 *Ibid.*, pp. 638-39.

40 Counts, *The Selective Character of American Secondary Education*, p. 84.

41 Hurlock and Jansing, *op. cit.*, pp. 187-88.

TABLE 93

RELATIONSHIP BETWEEN THE SOCIO-ECONOMIC STATUS OF FATHERS AND THE VOCATIONAL PLANS OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS

Vocational Plans	Socio-Economic Status									
	Professional		Proprietary-Managerial		Commercial-Clerical		Manual		Unknown	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Academic curriculum:										
Professions	34	79.0	105	51.4	36	37.5	81	36.3	17	41.5
Owners-Managers	1	2.3	18	8.8	1	1.0	8	3.6	1	2.4
Commercial-Clerical	2	4.7	25	12.3	23	24.0	35	15.7	4	9.8
Manual work	3	7.0	19	9.3	13	13.5	50	22.4	5	12.2
Work, unspecified	.....	.....	3	1.5	3	3.1	9	4.0	1	2.4
No plans	3	7.0	34	16.7	20	20.8	40	17.9	13	31.7
Scientific curriculum:										
Professions	7	77.8	43	57.3	19	55.9	38	46.9	3	27.3
Owners-Managers	.....	.....	6	8.0	1	2.9	2	2.5	1	9.1
Commercial-Clerical	.....	.....	9	12.0	6	17.6	10	12.3	1	9.1
Manual work	.....	.....	8	10.7	6	17.6	15	18.5	2	18.1
Work, unspecified	.....	.....	4	5.3	.....	.....	2	2.5	1	9.1
No plans	2	22.2	5	6.7	2	5.9	14	17.3	3	27.3

TABLE 93—(CONTINUED)

Vocational Plans	Socio-Economic Status									
	Professional		Proprietary-Managerial		Commercial-Clerical		Manual		Unknown	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
General curriculum:										
Professions	4	50.0	14	34.1	9	33.3	14	30.4	1	20.0
Owners-Managers	.....	.....	6	14.6	2	7.4	2	4.3	.....	.....
Commercial-Clerical	2	25.0	8	19.5	8	29.6	7	15.2	1	20.0
Manual work	.....	.....	6	14.6	4	14.8	15	32.6	1	20.0
Work, unspecified	1	12.5	1	2.4	1	3.7	2	4.3	1	20.0
No plans	1	12.5	6	14.6	3	11.1	6	13.0	1	20.0
Commercial curriculum:										
Professions	2	28.6	3	6.5	8	20.0	13	11.8	2	9.5
Owners-Managers	.....	.....	8	17.4	2	5.0	5	4.5	1	4.8
Commercial-Clerical	2	28.6	23	50.0	18	45.0	46	41.8	8	38.1
Manual work	.....	.....	4	8.7	4	10.0	24	21.8	6	28.6
Work, unspecified	1	14.2	3	6.5	5	12.5	14	12.7	2	9.5
No plans	2	28.6	5	10.9	3	7.5	8	7.3	2	9.5

TABLE 94

RELATIONSHIP BETWEEN MENTAL ABILITY AND AVERAGE ACHIEVEMENT MARKS OF JUNIORS AND SENIORS IN THE DIFFERENT CURRICULUMS

Mental Ability	A		B		C		D		F	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Academic curriculum:										
Fourth quarter	43	21.9	104	53.1	39	19.9	10	5.1	-----	-----
Third quarter	12	7.6	81	51.3	47	29.7	18	11.4	-----	-----
Second quarter	5	4.0	31	25.0	64	51.6	19	15.3	5	4.0
First quarter	2	1.6	21	16.3	59	45.7	43	33.3	4	3.1
Scientific curriculum:										
Fourth quarter	18	31.6	24	42.1	10	17.5	5	8.8	-----	-----
Third quarter	5	7.4	30	44.1	24	35.3	9	13.2	-----	-----
Second quarter	1	1.8	12	21.8	21	38.2	20	36.4	1	1.8
First quarter	-----	-----	3	10.0	13	43.3	13	43.3	1	3.3
General curriculum:										
Fourth quarter	1	10.0	4	40.0	4	40.0	1	10.0	-----	-----
Third quarter	1	2.9	9	26.5	16	47.1	8	23.5	-----	-----
Second quarter	-----	-----	2	5.9	9	26.5	23	67.6	-----	-----
First quarter	-----	-----	6	12.2	19	38.8	22	44.9	2	4.1
Commercial curriculum:										
Fourth quarter	8	21.1	18	47.4	11	28.9	1	2.6	-----	-----
Third quarter	-----	-----	20	43.5	17	36.9	8	17.4	1	2.2
Second quarter	-----	-----	23	38.3	25	41.7	10	16.7	2	3.3
First quarter	-----	-----	15	18.8	32	40.0	31	38.7	2	2.5

passing mark, are still in school. For the most part, they are in the lower quarters of intelligence.

The differences in achievement are even more pronounced when the percentages of pupils in the fourth quarter who receive marks of A or B are set against those in the lowest quarter who receive these marks. Thus, in the academic curriculum 75 per cent of the pupils in the highest quarter receive average marks of A and B, but only 17.9 per cent of those in the lowest quarter earn these marks. In the scientific curriculum the respective percentages are 73.7 and 10.0; in the general curriculum, 50.0 and 12.2; and in the commercial, 68.5 and 18.8. In all curriculums the percentages of pupils earning average marks of A or B decrease in proceeding from the higher to the lower quarters. There is, therefore, positive relationship between high mental ability and superior achievement, and such relationship is pronounced.

The various percentages do not, however, tell the whole story. An average mark of D for all work taken in high school does not show the amount of failure. But in the majority of cases, pupils whose average marks are D experienced failure in subjects during their high-school career. Many pupils whose average marks are above D also failed in one or more subjects during their years of high school, but the greatest amount of failure occurred among pupils in the first quarter of intelligence.

Somewhat similar results on the relation between achievement and mental ability have been reported by Proctor. He found that the average high-school marks of 955 high-school pupils increased somewhat proportionally as their intelligence quotients increased.[42]

While intelligence has a direct bearing on achievement, other factors, such as interest, persistence, industry, cooperation, health, home environment, previous training, teaching efficiency, standards by which achievement is measured, etc., also have an effect on accomplishment.[43] Hoke concluded that intelligence is a powerful factor, along with perseverance, industry, and willingness to follow directions.[44]

42 Proctor, *Educational and Vocational Guidance*, p. 33.

43 Frank N. Freeman, *Mental Tests*, pp. 390-92. Boston: Houghton Mifflin Co., 1926.

44 Rex Livingstone Hoke, "The Correlation of Intelligence and Scholarship in High School Subjects," p. 69. Unpublished Master's thesis, Department of Education, University of Chicago, 1926.

The correlations between intelligence and school progress and between intelligence and achievement in different subjects, reported in various investigations, show that intelligence is a powerful factor in school achievement, but at the same time the correlations indicate that other factors have a bearing on achievement. Farley, Frey, and Garland found correlations between median intelligence quotients of pupils and the school grades in which they were of $0.75 \pm .027$ in one school and $0.69 \pm .038$ in another.[45] Flemming reported correlations between the results of the *Terman Group Test of Mental Ability* and the achievement of pupils in the Horace Mann School for Girls of .60 for the junior high school and .63 for the senior high school; and correlations of .52 and .32 for junior and senior high schools, respectively, between achievement and results from the *Otis Self-Administering Test, Higher Examination, Form B.*[46] Jordan found the average correlation between the Otis, Army Alpha, Miller, and Terman psychological examinations results and school marks in all subjects to be 0.48, with no great variations between correlations for the four tests.[47]

Since other factors are involved in achievement, a low intelligence quotient does not permit the prediction that a pupil will fail, nor does a high one guarantee that a pupil will always pass in his subjects. This is illustrated in a previous section,[48] and other studies confirm it. Goodman showed that of 1,373 pupils who had failed one or more times during their high-school careers, 15 per cent of all failures had intelligence quotients of 110 or above; 62 per cent had average ability, or intelligence quotients between 90 and 110; and 23 per cent had inferior ability, or intelligence quotients below 90.[49] The results of Goodman's study should not be interpreted to mean, however, that relatively greater proportions of pupils of normal intelligence fail than of those of below-normal mental ability. The pupils with lower intelligence quotients are not, generally, in school in such large numbers as those of normal intel-

45 E. S. Farley, A. J. Frey, and Gertrude Garland, "Factors Related to the Grade Progress of Pupils," *Elementary School Journal*, XXXIV (November, 1933), 187.

46 Cecile W. Flemming, *A Detailed Analysis of Achievement in the High School*, pp. 68-69 (insert between). Teachers College Contribution to Education, No. 196, 1925.

47 A. M. Jordan, *Educational Psychology*, p. 412. New York: Henry Holt and Co., 1933 (revised).

48 Table 50, p. 117.

49 Helen C. Goodman, "IQ in Relation to Graduation After Failure," *Journal of Educational Psychology*, XXVI (March, 1935), 198.

ligence. Maddocks has shown that of one hundred selected failures, only sixteen had intelligence quotients above 95, and of these, three had intelligence quotients from 106 to 115.[50] Mitchell reported somewhat similar results for pupils who failed over a period of years, 74 per cent of those failing being among the lowest 40 per cent in intelligence, while 14 per cent were among the highest 40 per cent in intelligence, as measured by the Otis tests.[51]

Socio-economic status and intelligence.—It has been shown in Table 81[52] that boys with intelligence quotients in the upper quarters are in the academic and scientific curriculums in much greater percentages than such pupils are in the general and commercial curriculums. Table 95 does not emphasize positive relationships between socio-economic status and intelligence, but it does emphasize the fact that intelligence and the curriculum chosen by pupils of this study are more closely related than are socio-economic status and intelligence.

In the academic curriculum the percentages of pupils in the fourth quarter whose fathers are proprietors or in professional, managerial, commercial, or clerical service are somewhat greater than the percentages of sons whose fathers are in the trades and unskilled labor, but the differences are not great. In the scientific curriculum the percentages in the fourth quarter are very nearly equal for all groups with the exception of commercial and clerical service. A similar condition exists among groups in the fourth quarters of the general and commercial curriculums, with the exception of the unskilled-labor group. But in these two curriculums the numbers of pupils from the various occupational groups are, in most instances, small.

In brief, socio-economic status of parents has little bearing on the intelligence of children, but it has a decided bearing on the curriculum chosen by the children.

The contention in a preceding paragraph that intelligence is more closely related to curriculum than to socio-economic status is brought out more pronouncedly in Figure 8, which gives the percentages of pupils whose fathers are in the different economic levels and who have

50 Carl W. Maddocks, "The Factor of Intelligence in School Failures," *School Review*, XXXV (October, 1927), 608.

51 Claude Mitchell, "Why Pupils Fail," *Junior-Senior Clearing House*, IX (November, 1934), 172.

52 P. 170.

TABLE 95

RELATIONSHIP BETWEEN THE INTELLIGENCE OF PUPILS IN THE DIFFERENT CURRICULUMS AND THE SOCIO-ECOMOMIC STATUS OF THEIR FATHERS

Socio-Economic Status of Fathers	Fourth Quarter		Third Quarter		Second Quarter		First Quarter	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Academic curriculum:								
Proprietors	36	37.5	19	19.8	21	21.9	20	20.8
Artisan-proprietors	5	21.7	3	13.0	8	34.8	7	30.4
Professional service	19	44.2	10	23.3	9	20.9	5	11.6
Managerial service	38	35.2	31	28.7	20	18.5	19	17.6
Commercial service	19	33.9	15	26.8	9	16.1	13	23.2
Clerical service	13	32.5	14	35.0	7	17.5	6	15.0
Skilled trades	16	23.5	21	30.9	16	23.5	15	22.1
Semi-skilled trades	30	31.6	27	28.4	19	20.0	19	20.0
Unskilled labor	6	16.2	9	24.3	7	18.9	15	40.5
Unknown	14	34.1	9	22.0	8	19.5	10	24.4
Scientific curriculum:								
Proprietors	8	21.0	15	39.5	12	31.6	3	7.9
Artisan-proprietors	1	20.0	....	....	2	40.0	2	40.0
Professional service	2	22.2	3	33.3	3	33.3	1	11.1
Managerial service	10	27.0	11	29.7	11	29.7	5	13.5
Commercial service	10	45.5	3	13.6	4	18.2	5	22.7
Clerical service	5	41.7	3	25.0	3	25.0	1	8.3
Skilled trades	9	30.0	7	23.3	8	26.7	6	20.0
Semi-skilled trades	7	18.4	18	47.4	7	18.4	6	15.8
Unskilled labor	2	25.0	3	37.5	3	37.5	....	....
Unknown	3	27.3	5	45.4	2	18.2	1	9.1
General curriculum:								
Proprietors	4	15.4	7	26.9	5	19.2	10	38.5
Artisan-proprietors	1	20.0	1	20.0	2	40.0	1	20.0
Professional service	....	....	4	50.0	3	37.5	1	12.5
Managerial service	....	....	4	26.7	4	26.7	7	46.6
Commercial service	1	5.3	4	21.1	7	36.8	7	36.8
Clerical service	1	12.5	2	25.0	3	37.5	2	25.0
Skilled trades	1	6.3	5	31.2	1	6.3	9	56.2
Semi-skilled trades	....	....	7	31.8	5	22.7	10	45.5
Unskilled labor	1	33.3	....	....	1	33.3	1	33.3
Unknown	1	20.0	....	....	3	60.0	1	20.0
Commercial Curriculum:								
Proprietors	3	15.0	3	15.0	7	35.0	7	35.0
Artisan-proprietors	1	14.3	1	14.3	2	28.6	3	42.8
Professional service	....	....	2	28.6	3	42.8	2	28.6
Managerial service	3	11.5	8	30.8	7	26.9	8	30.8
Commercial service	4	20.0	2	10.0	5	25.0	9	45.0
Clerical service	4	20.0	8	40.0	3	15.0	5	25.0
Skilled trades	4	13.8	3	10.3	9	31.0	13	44.8
Semi-skilled trades	13	21.0	13	21.0	16	25.8	20	32.2
Unskilled labor	5	41.7	4	33.3	....	....	3	25.0
Unknown	1	4.8	2	9.5	8	38.1	10	47.6

intelligence quotients above the median. There are differences in favor of children of the higher socio-economic levels in some curriculums, but the differences are not consistent.

In the academic curriculum, except for children of artisan-proprietors and of unskilled laborers — represented by eight and fifteen cases, respectively — there are no great differences from the viewpoint of intelligence quotients above the median, in the percentages of pupils from the various economic groups. The rank order of the percentages from highest to lowest is: (1) professional and clerical, (3) managerial, (4) commercial, (5) semi-skilled labor, (6) proprietors, (7) unknown, (8) skilled labor, (9) unskilled labor, and (10) artisan-proprietors. That there are no great differences in intelligence among the various socio-economic groups of pupils in the same curriculum, where there are more than a few cases, may be seen in the percentages included in the figure.

On the problem of socio-economic status and intelligence, investigators are divided into two groups: those who hold that there is positive correlation between intelligence test scores and socio-economic status, and those who hold there is no significant relation.

Haggerty and Nash, using data from the survey of New York rural schools, concluded that "success in intelligence tests is directly related to the occupations of fathers."[53] The authors further concluded that children of the professional classes were able to master a curriculum with emphasis on conceptual knowledge, but there was less likelihood that children of the artisan classes could master such a curriculum.[54]

Sandiford found for 4,175 high-school pupils in British Columbia that the children of parents engaged in professional, clerical, and business pursuits were somewhat superior, as measured by median intelligence quotients, to children of parents engaged in agriculture, skilled, semi-skilled, or unskilled work.[55]

Terman, in studying children, drew the conclusion that social class is highly correlated with intelligence fairly early in childhood.[56]

53 M. E. Haggerty and H. B. Nash, "Mental Capacity of Children and Paternal Occupation," *Journal of Educational Psychology,* XV (December, 1924), 571.

54 *Ibid.*

55 P. Sandiford, "Paternal Occupations and Intelligence of Offspring," *School and Society,* XXIII (January 23, 1926), 118.

56 L. M. Terman and others, *Mental and Physical Traits of a Thousand Gifted Children,* Genetic Studies of Genius, Vol. I, p. 82. Stanford University, 1925.

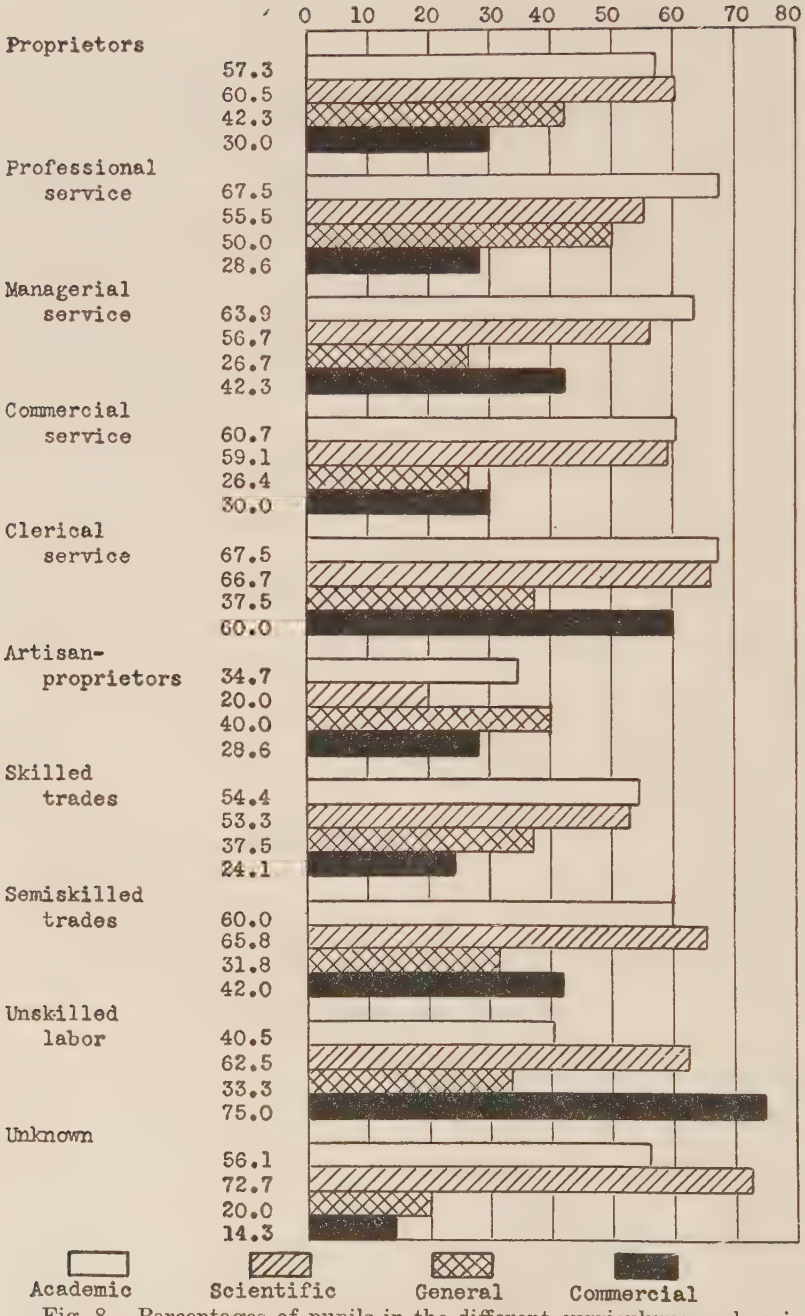

Fig. 8.—Percentages of pupils in the different curriculums and socio-economic levels with intelligence quotients above the medians for Juniors and Seniors.

Gerlach deduced from a study of various investigations on the relation between socio-economic status and intelligence quotients that "success in intelligence tests is directly related to the occupations of the fathers."[57]

Aldrich, while showing that greater percentages of pupils of non-labor groups than of pupils of labor groups in three high schools of St. Louis County, Missouri, have intelligence quotients above 100, concluded that it cannot be said that children of certain occupational groups stand high in intelligence as there is wide divergence in their receptive positions.[58]

Counts inferred from his data that the various occupational groups exhibited about the same measure of intelligence, but he reminded readers that selection already had taken place by the time pupils reached high school.[59]

Book found for Seniors in high schools of Indiana that each occupational group had representatives in the highest and in the lowest classification of intelligence, but the rank of occupational groups with highest average intelligence to lowest was: professional, clerical, salesmen, artisans, executives, laborers, and farmers.[60]

Stroud in studying the relation of intelligence test scores to tax assessments, as a measure of the economic status of fathers, found a low but reasonably significant correlation (+0.25) between intelligence test scores and economic status.[61]

Stoke and Lehman admit that "intelligence test scores correlate rather loosely with social and economic status, the correlation ranging usually from 0.30 to 0.40," but they emphasize that such correlation is not very high for this type of data.[62] They protest against the conclu-

57 Sarah Gerlach, "A Study of the Constancy and the Predictive Value of the I. Q.," pp. 22 and 47. Unpublished Master's thesis, Department of Education, University of Chicago, 1937.

58 Aldrich, *op. cit.*, p. 705.

59 Counts, *The Selective Character of American Secondary Education*, p. 130.

60 Book, *op. cit.*, p. 198.

61 J. B. Stroud, "A Study of the Relation of Intelligence Test Scores of Public School Children to the Economic Status of Their Parents," *Pedagogical Seminary and Journal of Genetic Psychology*, XXXV (March, 1928), 108.

62 Stuart M. Stoke and Harvey C. Lehman, "Intelligence Test Scores and Social and Economic Groups," *School and Society*, XXXI (March 15, 1930), 377.

sions of Woolley, Terman, Haggerty and Nash, and L. A. Hollingsworth that most superior or gifted children come from the superior economic classes, and call on the data in Haggerty and Nash, Book, and Colvin and MacPhail to support their conclusion that the great majority of superior and gifted children come from the non-professional groups.[63]

SUMMARY OF THE CHAPTER

Number of pupils.—The data in this chapter concern 1,168 Juniors and Seniors from twenty-one Catholic high schools for boys. This number of pupils comprises a third of all Juniors and Seniors in these schools.

The curriculums pupils follow.—More than half of these pupils follow the academic curriculum; about a fifth, the scientific; a fifth, the commercial; and a tenth, the general. As subjects required for college entrance were, as a rule, constants in most of these schools, even in the general and commercial curriculums, approximately all pupils took the subjects that are required for college entrance.

Country of birth of fathers.—Approximately three-fourths of the fathers of pupils in the academic, scientific, and general curriculums were born in the United States, and two-thirds of the fathers of pupils following the commercial curriculums were native born. Children of all nationalities follow the different curriculums, but of children of foreign-born fathers, the Irish prefer the academic and commercial curriculums, and the Polish concentrate on the academic curriculum.

Socio-economic status and curriculums.—Pupils from the various socio-economic levels are usually found in all curriculums, but nearly three-fifths of the children in the academic, scientific, and general curriculums are from homes in the higher vocational brackets, and about a half of the children taking the commercial curriculum are from the lower economic levels. There is a slight tendency for children of the higher economic levels to choose the scientific, academic, and general curriculums, and for children in the lower economic groups to choose the commercial curriculum.

Intelligence and curriculums. — Almost three-fifths of the pupils taking the academic and scientific curriculums have intelligence quotients above the median for all Juniors and Seniors, and almost two-

63 *Ibid.*

thirds taking the general and commercial curriculums have intelligence quotients below the median for all Juniors and Seniors.

Achievement and curriculums.—Approximately half of the pupils in the academic and scientific curriculums received average marks of A or B in all their school work. About a fifth of the pupils in the general curriculum and about two-fifths of those in the commercial curriculum received average marks of B or better.

Vocational plans and curriculums.—A third of the pupils in the academic curriculum plan to enter the professions, and a tenth expect to take up engineering. About a fifth plan to enter the trades or unspecified work, and a fifth express no plan, although many of these expect to enter college.

In the scientific curriculum a sixth of the pupils plan to become professional men; more than a third, engineers; about a fifth, skilled, semi-skilled or unspecified workers; and one-eighth mention no plans.

In the general curriculum more than a fourth of the pupils expect to enter the professions; more than a tenth, commercial service; almost a fifth, skilled trades; and more than an eighth give no plans.

Slightly more than one in ten pupils in the commercial curriculum expect to enter the professions; about two in ten plan to enter commercial service; about three in ten, clerical service; more than one in ten, skilled trades; more than one in ten, unspecified work; and about one in ten mentions no plans.

Educational plans and curriculums.—More than six in ten pupils following the academic and scientific curriculums plan to go to college; more than five in ten in the general curriculum and fewer than three in ten in the commercial curriculum plan to enroll in colleges and universities. The numbers expecting to continue their education in other types of schools are relatively small.

One in five pupils in the academic and in the scientific, one in four in the general, and one in two in the commercial curriculum definitely do not plan to enter college.

Number of units taken in relation to certain factors.—In general, the higher the socio-economic status and intelligence of Seniors, the greater is the number of units taken in mathematics and foreign language and the fewer the number taken in commercial subjects. The

percentage of pupils whose fathers were born in foreign countries and who took three or more units of mathematics is slightly smaller than that of pupils of native-born fathers. The reverse is true in the case of the foreign languages and commercial subjects.

Educational plans and intelligence.—In the academic and scientific curriculums, more than six in ten pupils planning to go to colleges and universities have intelligence quotients above the median of all Juniors and Seniors. In the general and commercial curriculums, about four in ten pupils planning to go to college have intelligence quotients above the median.

Of pupils not expecting to go to college, approximately five in ten in the academic and scientific curriculums, two in ten in the general, and four in ten in the commercial curriculum have intelligence quotients above the median for all Juniors and Seniors.

Of boys with intelligence quotients in the fourth quarter, three-fourths of those in the academic, more than three-fourths in the scientific, three-fifths in the general, and slightly more than a fourth in the commercial curriculum plan to go to college. In general, plans to enter college are entertained by large percentages of pupils having high intelligence and following the academic, the scientific, or the general curriculum.

Educational plans and achievement.—In the academic, scientific, and commercial curriculums, appoximately half the pupils who plan to go to college received average marks of A or B in all high-school work. On the other hand, approximately a third of those who do not expect to go to college earned average marks of A or B.

In the general curriculum, a fifth of the pupils planning to go to college received average marks of A or B, and about a sixteenth of those who do not intend to go to college received average marks of A or B.

Of boys who earned an average mark of A, three-fourths in the academic, more than three-fourths in the scientific, all in the general (two cases), and a fourth in the commercial curriculum plan to go to college. In general, in all curriculums except the commercial curriculum, large percentages of pupils who earned high average marks expect to go to college.

Educational plans and vocational plans.—Almost all boys who plan to enter the professions intend to enter colleges and universities. The percentages of pupils planning to enter college steadily decline in the case of boys who expect to become owners or managers, to enter commercial or clerical service, or to engage in "manual" work. Of boys stating no vocational plans, more than half in the academic curriculum, about a half in the scientific, about two-thirds in the general, and about one-third in the commercial curriculum plan to enter college.

Socio-economic status and educational plans.—The higher the socio-economic status of fathers, in general, the greater the percentage of their sons who plan to go to college. In all four curriculums, boys whose fathers are in professional, proprietary, managerial, commercial, or clerical service plan to go to college in greater percentages than do boys whose fathers are skilled, semi-skilled, or unskilled workers. But in the academic curriculum, almost half the boys in these latter groups plan to go to college, and in the scientific curriculum, more than half intend to enter college. In the commercial curriculum, fewer than half the boys of all socio-economic levels, with the exception of the professional group, plan to go to college.

Intelligence and occupational plans.—Pupils with intelligence quotients in the different quarters plan to enter the various occupational fields, but in the academic and scientific curriculums there is a direct relationship between vocational plan and mental ability. In other words, greater percentages of pupils choosing engineering, other professions, managerial, or commercial-clerical work have intelligence quotients above the median than is the case for pupils choosing skilled, semi-skilled, and unskilled labor. This holds to a large extent for pupils in the general and commercial curriculums also, although the percentages are not so pronounced. In the academic and scientific curriculums, almost six in ten pupils who mentioned no vocational plans have intelligence quotients above the median, and many of these pupils plan to go to college.

Occupational plans and socio-economic status.—For all curriculums, more than half the pupils from almost all socio-economic levels choose the "white-collar" jobs. Except for sons of men in the professions, there is slight relationship between the occupation of fathers and the expected occupations of their sons.

Achievement and mental ability.—There is a pronounced relation-

ship between mental ability and average achievement marks of pupils in all curriculums. Pupils in the third or fourth quarter of mental ability received marks of A and B in greater percentages than did pupils whose intelligence quotients are in the first and second quarters.

Some pupils in the highest quarter in each curriculum received average marks of D, but except for two pupils in the academic curriculum, none who is in the lowest quarter received an average mark of A.

Socio-economic status and mental ability.—The relationship between socio-economic status and mental ability of pupils is not clear-cut in any curriculum, although in the academic curriculum six of ten pupils whose fathers are proprietors, professional men, managers, or commercial or clerical workers have intelligence quotients above the median for all Juniors and Seniors. More than five in ten, six in ten, and four in ten sons of skilled, semi-skilled, and unskilled workers, respectively, have intelligence quotients above the median. In the other three curriculums there does not seem to be any more relationship between higher mental ability and higher socio-economic levels than between higher mental ability and lower socio-economic levels. The curriculum, more than socio-economic status, has a positive relationship to higher mental ability; that is, greater percentages of pupils with intelligence quotients above the median choose the academic and scientific curriculums than the general and commercial curriculums.

In view of the intelligence of pupils, their achievement as measured by marks, their socio-economic status, and the country of birth of their fathers, are the educational and vocational plans of pupils realizable? Are the kinds of curriculums offered in the schools sufficient for the needs of pupils from the standpoint of these various factors? Is there need for a practical-arts program? Is the commercial curriculum, from the point of view of the subjects it includes, adequate to prepare pupils for entrance into various forms of commercial activity? Is there need for a general curriculum? These questions are given consideration in Chapter IX.

CHAPTER VIII

ACTIVITIES AND INTERESTS OF FORMER PUPILS

THE PURPOSE OF THE CHAPTER

In evaluating a school curriculum, the best procedure, perhaps, is to study the former pupils of the school who followed the curriculum, rather than to base conclusions entirely on direct consideration of the means that the school employs to bring about desirable results in its pupils. The former pupils of the schools are those who left the schools either as graduates or non-graduates.

The purpose of this chapter, therefore, is to present data on further educational activities of former pupils, the reasons discontinued pupils had for withdrawing from school, the occupational positions in life former pupils have attained, the subjects they took in school which they consider of greatest or of least value to them in their present employment, the school subjects they wish they had taken, the reasons they had for choosing their first jobs, and the amount of high-school training those who did not enter college received for work they entered.

A second type of data is given concerning such interests and activities of former pupils as religious practices, civic activities, social activities, amusements and recreations, and reading interests.

THE FORMER PUPILS

The young men who are the subjects of this part of the present study are former pupils of six of the twenty-one Catholic high schools. The six schools are located in five cities in three states. Three of the schools are in Indiana; two, in Chicago, Illinois; and one, in Michigan. The smallest city has a population over 100,000, and the largest, over three million. The enrolment of these schools in 1937 ranged from 245 to 700 pupils.

Methods of contacting former pupils.—The interview-questionnaire method was used in getting information from former pupils. A letter from the principals of the respective schools together with a questionnaire was enclosed in an envelope, and pupils — for the most part Seniors — of the six schools approached former pupils and asked them

to answer the questionnaire. Members of the class that entered high school in 1928, however, were sent questionnaires through the mail. The purpose of this procedure in the case of the entering class of 1928 — the members of which, if they entered college would normally have completed their college course by 1936 — was to see whether the interview-questionnaire method of approach furnished a sample of greater or less selectivity than that from sending questionnaires by mail.

The supposedly correct addresses of 543 members of the classes that entered in 1928 were available in the six schools. Questionnaires were mailed to these former pupils. Thirty-three were returned because of incorrect addresses. Of the 510 forms that apparently reached members of the Class of 1928, 224 or 43.9 per cent, were returned filled out.

As is shown in Table 104,[1] the sample furnished by the interview-questionnaire method is slightly less selected than that of the 1928 group who responded, on the basis of occupations they had when they answered the inquiry form. The amount of selectivity, however, is not very great, and hence the answers of the 1928 group are combined with those from the interview-questionnaire group in all tabulations except that of the occupations of former pupils.

Representativeness of the sample. — In applying Pearson's Chi-Square Test to show the representativeness of the sample of graduates who answered the questionnaire, the writer used the average marks of graduates from five of the six schools. The reason for not including graduates from the six schools is that one school used seventy-five as the passing mark, whereas the other five used seventy. That the group of graduates from the five schools is a representative sample of all the graduates of this study on the basis of achievement is shown in Table 96 in which is carried out the procedure for determining "goodness of fit" as described by Holzinger.[2]

Of the 1,013 graduates who answered the questionnaire, thirty-five did not sign their names or the writer failed to locate their permanent record cards, and, therefore, their marks were not secured. One hundred and thirty-eight graduates of the school not included answered the questionnaire, but their marks are omitted in the calculation. Therefore, the average marks of only 840 graduates are used in the calculation as the observed sample.

1 P. 227.
2 Holzinger, *op. cit.*, pp. 245-48.

By checking every third card of the graduates of the last fifteen years in the five high schools, the writer secured 1,564 average marks. By proportion this theoretical sample was reduced to 840 to correspond to the number of the observed sample.

TABLE 96

CALCULATION TO SHOW GOODNESS OF FIT OF SAMPLES OF GRADUATES AND DISCONTINUED PUPILS FROM FIVE HIGH SCHOOLS

Marks	Observed Frequency f't	Theoretical Frequency ft		f't—ft	(f't—ft)²	(f't—ft)² / ft
Graduates:						
93-100	49	(97)*	52.1	—3.1	9.6	0.1842
85-92	250	(428)	229.9	+20.1	404.0	1.7572
78-84	328	(637)	342.1	—14.1	198.8	0.5811
70-77	213	(402)	215.9	—2.9	8.4	0.3890
Total	840	(1,564)	840.0	00.0		2.9115
Discontinued Pupils:						
93-100	1	(28)	4.7	—3.7	13.7	2.9149
85-92	19	(97)	16.5	+2.5	6.3	0.3818
78-84	57	(280)	47.5	+9.5	90.3	1.9011
70-77	96	(634)	107.5	—11.5	132.3	1.2307
0-69	65	(364)	61.8	+3.2	10.2	0.1650
Total	238	(1,403)	238.0	00.0		6.5935

* The figures in this column represent the number of marks secured by taking every third graduate and discontinued pupil.

In the calculation X^2 was found to equal 2.9115, which according to Pearson's Table XII,[3] gives a value of .4076 for P. As a value of .2 is considered to show goodness of fit,[4] the sample of graduates can be regarded as representative of all graduates of the five schools on the basis of achievement.

By applying the same procedure to the average marks of the discontinued pupils from the five schools, the value of X^2 was found to be 6.5935, which gives a value for P of .1616. The sample is not, therefore, a representative sample of all discontinued pupils from the five schools on the basis of achievement.

Number of former pupils who answered questionnaire. — The

3 Pearson, *op. cit.*, pp. 26-28.

4 Holzinger, *op. cit.*, p. 247.

numbers of graduates and discontinued pupils who answered the questionnaire and the total number of graduates and discontinued pupils of the six high schools are given in Table 97. The graduates of 1937, however, are not included because they answered the student questionnaire in April and May, 1937, while they were still in high school. In the case of two of the high schools, established around 1900, only the graduates from 1921 to 1936 inclusive, are considered in the total number. In the case of the discontinued pupils, those from three schools who entered high school after 1921 are considered in the total number of discontinued pupils.

TABLE 97

TOTAL NUMBER OF GRADUATES AND DISCONTINUED PUPILS IN SIX CATHOLIC HIGH SCHOOLS AND THE NUMBER WHO SUBMITTED QUESTIONNAIRES

Schools	Graduates		Discontinued Pupils	
	Total Number*	Number Who Answered	Total Number	Number Who Answered
School 1	941	301	927†	98
School 2	779	199	1,157	54
School 3	461	142	614	45
School 4	691†	138	896†	28
School 5	882	161	753	44
School 6	1,051†	72	840†	23
Total	4,805	1,013	5,187	292

* Excluding class of 1937.

† Numbers of graduates and of discontinued pupils from 1921 to 1936 inclusive.

The total number of graduates, as here considered, of the six high schools is 4,805, of whom 1,013, or 21.5 per cent, answered the questionnaire. As a sample of 15 per cent of the total is sufficiently large to be representative, provided it be a normal sample, the group presented in this part of the study is large enough on which to base conclusions.

As is pointed out in Table 98, 470 of the 1,013 graduates entered college. This comprises 46.4 per cent of all the graduates considered in this study. In Table 58[5] it is shown that 40.8 per cent of the Class of 1936 ostensibly entered college. And as some undoubtedly went to college after staying out of school a year or more, very probably the percentages of both groups entering college do not differ widely.

5 P. 126.

It was possible to get information on only 292 pupils who withdrew from school before graduation, and as this number is only 5.6 per cent of the pupils who discontinued, the sample is too small for purposes of valid conclusions.

Dates of entrance.—The numbers and percentages of former pupils who entered high school before 1928, in 1928, and after 1928 are presented in Table 98. They are grouped also as "graduates-on," or those who went to college; graduates, or those who did not enter institutions of higher learning; and discontinued pupils, or those who withdrew from school before graduation. The discontinued pupils may, however, have entered some other high school.

TABLE 98

NUMBERS AND PERCENTAGES OF FORMER PUPILS—GRADUATES WHO ENTERED COLLEGE, GRADUATES WHO DID NOT ENTER COLLEGE, AND DISCONTINUED PUPILS—WHO ENTERED HIGH SCHOOL IN DIFFERENT PERIODS

Year Entered High School	Graduates-on		Graduates		Discontinued	
	Number	Percentage	Number	Percentage	Number	Percentage
Before 1928	211	44.9	146	26.9	64	21.9
1928	105	22.3	89	16.3	30	10.3
After 1928	154	32.8	308	56.7	198	67.8
Total	470	100.0	543	99.9	292	100.0

Of the group that went to college, almost half, 44.9 per cent, entered high school before 1928. This large percentage of older former pupils is due to the fact that many boys who entered high school later than 1928 were still in college when the data were collected, and the interview-questionnaire approach was not a satisfactory method of reaching those who were attending colleges away from home. Some of them were contacted, however. More than half (56.7 per cent) of the graduates who did not go to college had entered high school after 1928. Slightly more than two-thirds (67.8 per cent) of discontinued pupils entered high school after that date.

Four hundred and seventy, or 36.0 per cent of all former pupils considered in this study, went to college; 543, or 41.6 per cent were graduated but did not go to college; and 292, or 22.4 per cent, did not complete the high-school course in the Catholic high school which they had entered.

EDUCATIONAL AND OCCUPATIONAL ACTIVITIES

Attendance in colleges.—Of the graduates who entered college, about a fifth were still in school. The others who were no longer in college attended for various lengths of time. A fifth went only one year, another fifth dropped out after two years, and a tenth discontinued after three years. Almost half, 48.7 per cent, had completed four or more years of college. The large percentage, 22.1, representing those who went to school more than four years, is in great part due to the numbers who studied for the priesthood, for religious teachers, for medicine, or for law. The data are presented in Table 99.

TABLE 99

NUMBER OF YEARS GRADUATES WHO ENTERED COLLEGE REMAINED IN COLLEGE

Number of Years	Attended College		Still in College	
	Number	Percentage	Number	Percentage
One year	78	20.5	30	33.3
Two years	75	19.7	24	26.7
Three years	38	10.0	14	15.6
Four years	101	26.6	10	11.1
More than four years	84	22.1	12	13.3
No answer	4	1.1	....	....
Total	380	100.0	90	100.0

Degrees received.—More than half of those who entered colleges, but were no longer in school at the time the data were collected, earned degrees, and the degrees, with the exception of those in pharmacy, are those conferred by colleges and universities after four or more years of work. The various degrees received are presented in Table 100. Sixty-one, or 30.7 per cent of the degrees earned, were the bachelor of arts degree, and 45, or 22.6 per cent, were degrees in commerce. Although engineering ranked first among the specific occupational choices of pupils in school,[6] only 22, or 11.1 per cent, of the degrees earned by graduates were in engineering. About one in twenty of those who went to college earned the higher academic degrees of master of arts or science or doctor of philosophy.

6 Table 43, p. 103.

TABLE 100

NUMBERS AND PERCENTAGES OF GRADUATES WHO ENTERED COLLEGE AND EARNED VARIOUS DEGREES

Degrees	Number	Percentage
A. B.	61	30.7
B. S.	15	7.5
B. S. in Commerce	45	22.6
E. E., M. E., C. E., etc.	22	11.1
LL. B.	28	14.1
M. D.	11	5.5
D. D. S.	6	3.0
Phar. B.	11	5.5
Total	199	100.0
M. A. or M. S.	7	3.5
Ph. D.	2	1.0

Educational activities after leaving high school.—The educational activities of graduates who did not go to college and of discontinued pupils are given in Table 101. More than half the graduates who did not enter college (54.3 per cent) did not receive further schooling after leaving high school. Almost a fifth (19.2 per cent) entered business

TABLE 101

EDUCATIONAL ACTIVITIES OF GRADUATES WHO DID NOT GO TO COLLEGE AND OF DISCONTINUED PUPILS

Educational Activities	Graduates		Discontinued Pupils	
	Number	Percentage	Number	Percentage
Received no further schooling after leaving Catholic high school	295	54.3	98	33.6
Transferred to public or private high school but received no further schooling since leaving high school	.....	.....	80	27.4
Still attending other high schools	.....	.....	32	11.0
Transferred to other high schools and later entered college	.....	.....	24	8.2
Followed post-graduate course in high school	18	3.3	.....	.....
Entered business college	104	19.2	17	5.8
Followed technical course	64	11.8	27	9.2
Entered night school	23	4.2	8	2.7
Followed correspondence course	14	2.6	1	0.3
Entered other types of schools	8	1.5	4	1.4
No answer	17	3.1	1	0.3
Total	543	100.0	292	99.9

colleges after graduation, and more than a tenth (11.8 per cent) followed technical courses. Of pupils who discontinued from the Catholic high schools, 33.6 per cent did not receive any further schooling, and 27.4 per cent, who transferred to some other high school, either public or private, did not receive any further training in school after leaving the school to which they transferred. Sixty-one per cent of the discontinued pupils, therefore, did not receive any further schooling after they finally left high school. Eleven per cent were still attending a secondary school. Fewer than one in ten (8.2 per cent) of the discontinued pupils entered college.

The number of discontinued pupils who eventually graduated from high school is not shown in the table. Only 45, or 15.4 per cent of all discontinued pupils, were graduated up to the time the data were collected.

Further education of those who did not enter colleges.—More than two in five graduates who did not enter college received further education in some other school on the secondary level, such as business college, post-graduate work in high school, technical or trade schools, or correspondence schools.[7] The percentages of graduates and discontinued

TABLE 102

NUMBERS AND PERCENTAGES OF FORMER PUPILS (EXCLUDING GRADUATES WHO ENTERED COLLEGES) WHO CONTINUED THEIR EDUCATION IN VARIOUS WAYS AFTER FINALLY LEAVING HIGH SCHOOL

Educational Activities	Graduates		Discontinued Pupils	
	Number	Percentage	Number	Percentage
Continued full-time education after finally leaving high school and have had no training since going to work	136	25.0	35	12.0
Did not continue full-time education after leaving high school but have had further training since going to work	85	15.7	33	11.3
Continued full-time training after leaving high school and have had further training since going to work	10	1.8	.....	.....
No further training since leaving high school	295	54.3	178	61.0
Still attending high school or college	.....	.....	45	15.4
No answer	17	3.1	1	0.3
Total	543	99.9	292	100.0

7 Table 101.

pupils who continued full-time, part-time, or both full-time and part-time education on the secondary level are given in Table 102. Twenty-five per cent of the graduates not going to college continued full-time training, and 15.7 per cent of those who went to work immediately after graduation continued in some sort of educational work after they entered an occupation.

Of the discontinued pupils, 12.0 per cent continued full-time education after finally leaving high school but had no further training since going to work; 11.3 per cent continued part-time education after going to work; and 61.0 per cent received no further training after leaving high school.

Reasons for leaving school.—Many pupils gave more than one reason for leaving school, but the base used in deriving the percentages presented in Table 103 is 292, the number of discontinued pupils, to find what percentage of all pupils gave each reason for withdrawing from school. The reason, "transfer to public school," given by almost a third of the pupils does not give a clue to the basic reasons for withdrawing, but the other statements do. The necessity to help support the family was given by 17.5 per cent of the cases, and the expenses in connection with attending private schools was mentioned by 10.6 per cent. Two closely related reasons, "training for chosen occupation not available," and "lack of interest in school work," were mentioned by 16.8 and 14.4 per cent of the pupils, respectively. These two reasons, together with "failure in school work," mentioned by 8.2 per cent of the drop-outs, point to the school's responsibility for pupils' withdrawing. At most, therefore, about 40 per cent of the reasons of withdrawing pupils are ones for which the school bears responsibility.

Occupational pursuits.—The numbers and percentages of pupils engaged in different occupational pursuits are given in Table 104, in which each group previously considered — that is, graduates who went to college, graduates who did not enter college, and discontinued pupils — is further divided into those who entered high school in 1928 and those who entered in other years. Those who entered in 1928 received the questionnaire through the mail instead of filling it out at the request of a high-school pupil. The purpose of this different procedure, as was explained earlier,[8] was to serve as a check on the interview-questionnaire method. The writer feared that only the better-

8 P. 218.

TABLE 103
NUMBERS AND PERCENTAGES OF FORMER PUPILS REPORTING DIFFERENT REASONS FOR LEAVING HIGH SCHOOL BEFORE GRADUATION

Reasons for Leaving	Number (292)	Percentage
Failure in school work	24	8.2
Lack of interest in school work	42	14.4
Unfavorable home conditions	1	0.3
Training for chosen occupation not available	49	16.8
Transfer to public school	95	32.5
Opportunity for good position	27	9.2
Desire to earn money for self	26	8.9
Necessary to help support family	51	17.5
Necessary to support self	9	3.1
Poor health	4	1.4
Expenses too great	31	10.6
Other reasons	24	8.2
No answer	1	0.3
Total	384	131.4

known graduates from a school might be approached to fill out a questionnaire, and, as a result, the sample by the interview-questionnaire approach might be even more selective than is usual in samples secured by mailing. Greater selectivity would be shown by greater percentages among non-manual workers than is normal for such groups of workers.

The percentages of both the 1928 and "other years" groups in the different occupational pursuits are given in the last two columns of the lower half of the table. At first glance, the various percentages for each occupation do not seem to differ from each other to any great extent, but the 1928 group is slightly more selected. This is more apparent if the total percentages of the non-manual workers for "other years" and for 1928 are compared. The percentages for both groups respectively are 52.9 and 62.0. The 1928 group is, therefore, more selected than the group reached by the interview-questionnaire method. This greater selectivity may be due, in part, to the fact that the average age of those who entered school in 1928 was approximately twenty-two years at the time the data were collected. The writer did not secure the ages of former pupils, but as more than half of the "other years" group entered high school after 1928, their average age was very likely less than twenty-one.

The 1928 group numbers 224 former pupils, about one-sixth of the

TABLE 104

NUMBERS AND PERCENTAGES OF FORMER PUPILS — GRADUATES WHO WENT TO COLLEGE, GRADUATES WHO DID NOT ENTER COLLEGE, AND DISCONTINUED PUPILS — IN THE DIFFERENT OCCUPATIONAL PURSUITS

Occupational Pursuits	Graduates-on		Graduates		Discontinued		All	
	1928	Other Years	1928	Other Years	1928	Other Years	1928	Other Years
Numbers:								
Owners	1	14	4	12	1	5	6	31
Professions	22	95	3	9	1	7	26	111
Managerial service	10	20	6	33	....	12	16	65
Commercial service	18	60	22	94	4	32	44	186
Clerical service	24	59	21	102	2	17	47	178
Building trades	1	2	3	18	1	8	5	28
Machine trades	3	4	6	41	3	23	12	68
Printing trades	....	3	3	7	2	2	5	12
Miscellaneous trades	2	10	11	57	8	43	21	110
Transportation	....	8	5	30	2	21	7	59
Public service	1	3	....	4	....	2	1	9
Personal service	....	....	....	4	....	9	....	13
Common labor	1	1	1	7	....	4	2	12
All others	1	2	1	7	1	4	3	13
None	2	3	3	16	2	21	7	40
No answer	2	8	....	8	1	9	3	25
Student	17	73	....	5	2	43	19	121
Total	105	365	89	454	30	262	224	1,081
Percentages:								
Owners	1.0	3.8	4.5	2.6	3.3	1.9	2.7	2.9
Professions	20.9	26.0	3.4	2.0	3.3	2.7	11.6	10.3
Managerial service	9.5	5.5	6.7	7.3	....	4.6	7.1	6.0
Commercial service	17.1	16.4	24.7	20.7	13.3	12.2	19.6	17.2
Clerical service	22.8	16.2	23.6	22.5	6.7	6.5	21.0	16.4
Building trades	1.0	0.5	3.4	4.0	3.3	3.1	2.2	2.6
Machine trades	2.8	1.1	6.7	9.0	10.0	8.8	5.4	6.3
Printing trades	....	0.8	3.4	1.5	6.7	0.8	2.2	1.1
Miscellaneous trades	1.9	2.7	12.4	12.6	26.7	16.4	9.4	10.2
Transportation	....	2.2	5.6	6.6	6.7	8.0	3.1	5.5
Public service	1.0	0.8	....	0.9	....	0.8	0.4	0.8
Personal service	....	....	....	0.9	....	3.4	....	1.2
Common labor	1.0	0.3	1.1	1.5	....	1.5	0.9	1.1
Others	1.0	0.5	1.1	1.5	3.3	1.5	1.3	1.2
None	1.9	0.8	3.4	3.5	6.7	8.0	3.1	3.7
No answer	1.9	2.2	....	1.8	3.3	3.4	1.3	2.3
Student	16.2	20.0	....	1.1	6.7	16.4	8.5	11.2
Total	100.0	99.8	100.0	100.0	100.0	100.0	99.8	100.0

total number who answered the questionnaire. As the greater selectivity is represented by less than 10 per cent, or approximately twenty cases scattered through five different occupations, there is no great distortion in including the 1928 group with the others. There is less selection among the entire group than there would be had all former pupils been contacted through the mail.

The facts presented in the table show that the greatest percentage of those in the professions are from the college group; the greatest percentages in the commercial and clerical fields are from those graduates who did not go to college; and the greatest percentages in the trades are from the discontinued pupils. This is brought out more clearly in Figure 9, in which the percentages of the three groups — graduates who went to college, graduates who did not go to college, and non-graduates are presented graphically. The trades are combined, and under "other occupations" are included transportation, public service, personal service, common labor, and "others."

Pupils from the "graduate-on," graduates, and discontinued groups are found in each classification represented in the figure. Owners and managers are about equally represented among all groups. The broad meaning attached to professions accounts to a great extent for graduates who did not go to college and for discontinued pupils being found under this classification, although some of the pupils who withdrew from high school later went to college and entered the professions. Almost a fourth of all graduates who went to college became professional workers. Commercial and clerical service together claim approximately a third of those who went to college, more than two-fifths of those who graduated but did not go to college, and almost a fifth of discontinued pupils. More than a fourth (26.9 per cent) of the graduates who did not enter college are engaged in the various trades, and almost a third of the discontinued pupils are in these occupations. "Other occupations" includes 10.8 per cent of the graduates who did not go to college and 14.8 per cent of the discontinued group. Almost a fifth (19.1 per cent) of the "graduates-on" group and about a sixth (15.4 per cent) of the discontinued pupils are still in school.

Subjects of most value to former pupils in their work.—The writer had occasion to speak to many graduates of three of the six schools, and many of them mentioned the fact that often the subjects they valued most in their high school course were of no appreciable value

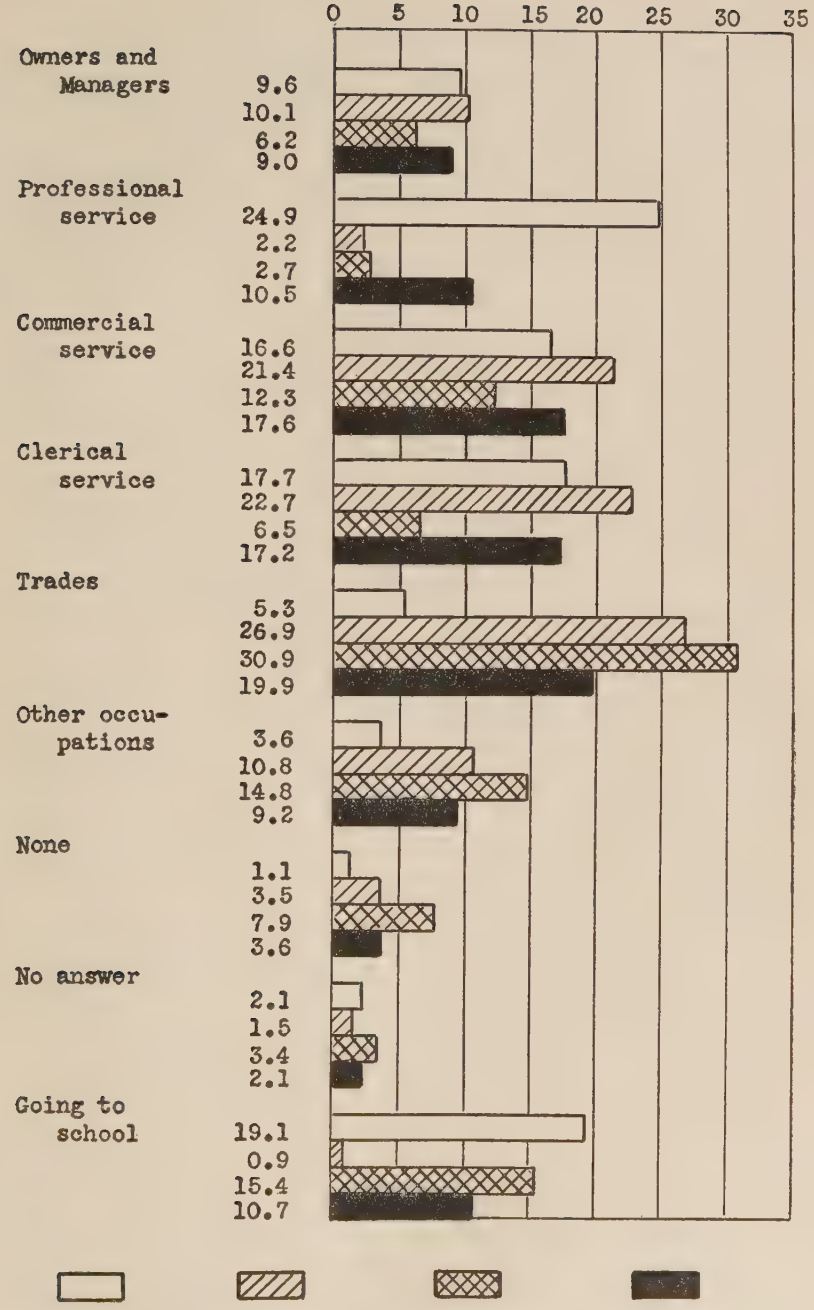

Fig. 9.—Percentages of former pupils engaged in the different occupational fields.

to them in their work. It is recognized that much of the subject-matter taught in school has no direct utilitarian value, especially if one thinks of utilitarian value in connection with employment or on a dollar-and-cents basis. A strictly utilitarian standard for subjects would, very probably, result in a strictly narrow vocational curriculum, and Catholic philosophy of education does not subscribe to such a course of study. Nor does it admit that only utilitarian subject-matter has a place in the high school curriculum.

It is important, however, to determine what subjects were of direct value to former pupils in their occupational pursuits. The fact that English literature, the social studies, and religion, for example, were not frequently mentioned is considered no reflection on those subjects. If a man is a bookkeeper, a physician, or a teacher of chemistry, it is doubtful whether he would think of the subjects mentioned as of most value to him in his work. Commercial work, science, or mathematics would very probably be of more value, in his way of thinking, than certain other subjects that are required in high school.

The numbers and percentages of former pupils who mentioned the subjects of most value to them in their work are given in Table 105. The bases used in deriving these percentages are the number of former pupils in each of the three groups — "graduates-on," graduates, and discontinued pupils. These bases do not represent the number of pupils who actually carried the subjects in high school, but the percentages derived from the figures do represent the relative values of all subjects for all pupils in the three groups.

English and mathematics are the two subjects or subject-fields that "graduates-on," graduates and discontinued pupils considered of most value to them in their work. "Graduates-on" and graduates ranked English first, while discontinued pupils judged the mathematics they had in high school was of more value than the English. The five subjects of most value to graduates who went to college are, according to rank, English, mathematics, Latin, chemistry, and bookkeeping. Graduates who did not go to college considered the subjects of most value in this order: English, mathematics, bookkeeping, business arithmetic, and typewriting. The discontinued pupils thought that mathematics, English, Latin, business arithmetic, science, and chemistry were of most value, with Latin and business arithmetic tied for third and science and chemistry, for fifth.

TABLE 105

SCHOOL SUBJECTS OF MOST VALUE TO FORMER PUPILS IN THEIR PRESENT WORK

Subjects of Most Value	Graduates-on (470)		Graduates (543)		Discontinued (292)	
	Number	Percentage	Number	Percentage	Number	Percentage
Religion	33	7.0	15	2.8	6	2.1
English	257	54.7	223	41.1	75	25.7
Literature	5	1.1	1	0.2	....	....
History	38	7.0	14	2.6	4	1.4
American history	1	0.2	....	....	....	....
Civics	11	2.3	10	1.8	4	1.4
Economics	18	3.8	6	1.1	3	1.0
Sociology	....	....	1	0.2	....	....
Mathematics	176	37.4	161	29.7	82	28.1
Algebra	13	2.8	23	4.2	11	3.8
Geometry	11	2.3	22	4.1	6	2.1
Latin	81	17.2	13	2.4	14	4.8
Modern foreign language	18	3.8	4	0.7	1	0.3
Science	35	7.4	14	2.6	11	3.8
General science	....	....	2	0.4	1	0.3
Biology	5	1.1	2	0.4	6	2.1
Physics	42	8.9	28	5.2	5	1.7
Chemistry	54	11.5	37	6.8	11	3.8
Commercial subject	6	1.3	13	2.4	7	2.4
Typewriting	22	4.7	48	8.8	7	2.4
Shorthand	3	0.6	11	2.0	....	....
Bookkeeping	42	8.9	105	19.3	7	2.4
Business arithmetic	9	1.9	61	11.2	14	4.8
Business law	8	1.7	5	0.9	....	....
Salesmanship	....	....	....	....	1	0.3
Mechanical drawing	7	1.5	14	2.6	5	1.7
Public speaking	24	5.1	6	1.1	1	0.3
Music, fine arts	6	1.3	7	1.3	3	1.0
Physical education	3	0.6	1	0.2	3	1.0
Economic geography	....	....	1	0.2	....	....
Journalism	....	....	1	0.2	1	0.3
Health	....	....	....	....	1	0.3
None	19	4.0	53	9.8	38	13.0
All	16	3.4	4	0.7	3	1.0
No answer	35	7.4	37	6.8	50	17.1

A great many of the discontinued pupils, almost a fifth, did not answer the question, and almost an eighth gave the answer "none." By "none" they probably meant that none of the subjects they had in high school was of any usable value in their work. The same interpretation probably applies to "graduates-on" and graduates' use of the term. In some cases, however, they might have meant that no one subject was of more value than another.

Subjects of least value to former pupils in their work.—In regard to subjects of least value to former pupils in their work, it may be said that the fact that great numbers of pupils mention certain subjects or subject-fields does not give adequate basis for the conclusion that these subjects should have no place in the curriculum of the high school. The numbers of percentages in Table 106 simply show what subjects former pupils regard of least value to them in their work. Taking into consideration both Table 105 and Table 106, one might conclude that many subjects occupy a neutral position with respect to their apparent value to former pupils in their employment.

TABLE 106

SUBJECTS OF LEAST VALUE TO FORMER PUPILS IN THEIR PRESENT WORK

Subjects	Graduates-on (470)		Graduates (543)		Discontinued (292)	
	Number	Percentage	Number	Percentage	Number	Percentage
Religion	11	2.3	8	1.5	5	1.7
English	5	1.1	9	1.7	5	1.7
Literature	6	1.3	5	0.9	1	0.3
History	106	22.6	125	23.0	59	20.2
Civics	7	1.5	10	1.8	2	0.7
Economics	5	1.1	4	0.7	2	0.7
Sociology	....	....	3	0.6	....	....
Mathematics	30	6.4	17	3.1	7	2.4
Algebra	27	5.7	44	8.1	37	12.7
Geometry	40	8.5	57	10.5	12	4.1
Latin	120	25.5	255	47.0	117	40.1
Modern foreign language	71	15.1	94	17.3	22	7.5
Science	24	5.1	32	5.9	7	2.4
General science	2	0.4	3	0.6	1	0.3
Biology	22	4.7	34	6.3	20	6.8
Physics	18	3.8	26	4.8	5	1.7
Chemistry	53	11.3	60	11.0	12	4.1
Commercial subjects	2	0.4	2	0.4	....	....
Typewriting	5	1.1	13	2.4	4	1.4
Shorthand	5	1.1	10	1.8	....	....
Bookkeeping	8	1.7	13	2.4	1	0.3
Business arithmetic	....	....	2	0.4	1	0.3
Business law	2	0.4	2	0.4	1	0.3
Mechanical drawing	1	0.3	13	2.4	2	0.7
Music, fine arts	....	....	1	0.2	1	0.3
Physical education	1	0.2	1	0.2	1	0.3
Economic geography	2	0.4	1	0.2	....	....
Health education	....	....	2	0.4	1	0.3
None (all valuable)	63	13.4	41	7.6	20	6.8
No answer	77	16.4	67	12.3	59	20.2
All	1	0.2	6	1.1	9	3.1

Latin ranks first as the subject of least value to all three groups, and history holds second place. The five subjects or subject-fields considered least important by "graduates-on" and graduates are in rank order: Latin, history, modern foreign language, chemistry, and geometry. Discontinued pupils regarded Latin, history, algebra, modern foreign language, and biology as least important.

Some subjects were mentioned by groups of former pupils among both the five most valuable and the five least valuable ones. Latin and chemistry were mentioned by "graduates-on"; chemistry, by graduates; and Latin by discontinued pupils.

A large number of former pupils from each group did not answer the question, and a considerable number mentioned that none was least valuable. "None" in this connection was interpreted as meaning that all subjects were valuable. In instances in which "none" was qualified, that was the meaning given.

Subjects former pupils wished they had taken.—The subjects former pupils wished they had taken in high schools are, for the most part, those that the school offered, but which pupils did not elect. They are given in Table 107. The desired subjects are largely in the academic and commercial fields. All the six schools offered a full program of academic work, and all but the school having the smallest number of representatives in this section of the present study offered commercial courses.

A large number of former pupils did not mention any subject they wished they had taken. They may not have thought critically of their high-school work from the point of view of utility. On the other hand, they may have felt satisfied with the work they had taken in high school.

Of those expressing themselves, graduates who went to college wished they had taken more of subjects in the academic fields, especially mathematics, a required subject in all schools. Approximately 12 per cent wished they had taken bookkeeping and shorthand and typewriting. As these three subjects were frequently mentioned together, and as the general term "commercial subjects" was mentioned by 8 per cent, it may be concluded that from 20 to 25 per cent of this group wished they had taken commercial subjects in high school.

The percentages of graduates who did not go to college and who desired more work in academic and commercial fields correspond rather

closely to the percentages of "graduates-on." Eleven per cent of graduates who did not enter college wished they had had the opportunity to take industrial arts in high school.

One in four or five discontinued pupils would like to have taken commercial work, and one in five, industrial-arts subjects.

TABLE 107

SUBJECTS WHICH FORMER PUPILS WISHED THEY HAD TAKEN IN HIGH SCHOOL

Desired Subjects	Graduates-on (470)		Graduates (543)		Discontinued (292)	
	Number	Percentage	Number	Percentage	Number	Percentage
Religion*	1	0.2	1	0.2	....	....
English*	16	3.4	14	2.6	7	2.4
History*	3	0.6	1	0.2	2	0.7
Civics*	4	0.9	....	....	2	0.7
Economics	10	2.1	6	1.1	1	0.3
Sociology	2	0.4	....	....	1	0.3
Mathematics*	48	10.2	49	9.1	20	6.8
Greek	5	1.1	....	....	....	....
Latin*	12	2.6	6	1.1	2	0.7
Modern foreign language*	35	7.4	18	3.3	16	5.5
Science*	13	2.8	6	1.1	6	2.1
General science	1	0.2	1	0.2	....	....
Biology	13	2.8	2	0.4	3	1.0
Physics	34	7.2	27	5.0	9	3.1
Chemistry	35	7.4	25	4.6	21	7.2
Commercial subjects	38	8.1	70	12.9	30	10.3
Typewriting	57	12.1	73	13.4	27	9.2
Shorthand	54	11.5	69	12.7	17	5.8
Bookkeeping	58	12.3	65	12.0	24	8.2
Business arithmetic	5	1.1	13	2.4	7	2.4
Business law	6	1.3	8	1.5	4	1.4
Business English	1	0.2	5	0.9	3	1.0
Salesmanship	1	0.2	4	0.7	1	0.3
Mechanical drawing	26	5.5	38	7.0	8	2.7
Industrial arts	9	1.9	60	11.0	57	19.5
Public speaking	29	6.2	21	3.9	11	3.8
Music, fine arts	14	3.0	4	0.7	5	1.7
Physical education	1	0.2	....	....	4	1.4
Journalism	1	0.2	5	0.9	3	1.0
Dramatics	....	....	1	0.2	....	....
Psychology	6	1.3	5	0.9	....	....
Health	1	0.2	1	0.2	....	....
Economic geography	2	0.4	3	0.6	....	....
Home economics	....	....	1	0.2	....	....
Miscellaneous	2	0.4	3	0.6	2	0.7
None (satisfied)	51	10.9	46	8.5	17	5.8
No answer	109	23.2	96	17.7	76	26.0

* Pupils expressed desire for more units in these subjects.

In general, the subjects offered in the high schools apparently fulfilled the felt needs of graduates who went to college. The only subjects not offered by the schools and desired by a considerable group of graduates who did not go to college were industrial arts. The subjects not offered but desired by a fifth of the pupils who withdrew from school before graduation were in the field of industrial arts.

Reasons for choosing first job.—Of the 380 graduates who had gone to college and were engaged in earning a living at the time this study was being made, 25.3 per cent chose their first position because they were prepared for it in college. But the other two groups of former pupils did not, to any great extent, choose their first jobs because they were trained for them in high school. The reasons indicated by the three groups for choosing their first jobs are given in Table 108. Only 7.6 per cent of the 543 high-school graduates who did not go to college and only 4.5 per cent of the 247 discontinued pupils no longer in school chose their first occupation because they were trained for it in high school.

TABLE 108

NUMBERS AND PERCENTAGES OF FORMER PUPILS REPORTING CERTAIN REASONS FOR CHOOSING THEIR FIRST JOB

Reasons	Graduates-on (380)		Graduates (543)		Discontinued (247)	
	Number	Percentage	Number	Percentage	Number	Percentage
Had been trained for it in school	96	25.3	41	7.6	11	4.5
Had special ability for it	30	7.9	32	5.9	19	7.7
Had special interest in it	121	31.8	107	19.7	48	19.4
Had belief that the work would be enjoyable	46	12.1	50	9.2	16	6.5
Had good beginning pay	40	10.5	48	8.8	43	17.4
Had good prospects for the future	101	26.6	174	32.0	69	27.9
Was unable to find any other position	92	24.2	187	34.4	66	26.7
Was in harmony with parents' desire	21	5.5	36	6.6	37	15.0
Other reasons	18	4.7	4	0.7	4	1.6
No answer	25	6.6	11	2.0	19	7.7

The reasons most frequently mentioned by all groups for choosing their first positions, with the exception of the preparation that "graduates-on" received in college, were independent of the influence of the school. They are: "had special interest in it," "had good prospects for the future," and "was unable to find any other position." The percentages of "graduates-on," graduates, and discontinued pupils who men-

tioned these three reasons are, respectively: 31.8, 19.7, and 19.4 for "had special interest in it;" 26.6, 32.0, and 27.9 for "had good prospects for the future;" and 24.2, 34.4, and 26.7 for "was unable to find any other position."

Fifteen per cent of the discontinued pupils gave as answer to this question that they chose their first job because it was in harmony with their parents' desire. This suggests that their finding work was the cause of their discontinuing school.

Many pupils checked two or three reasons for choosing their first jobs. Apparently they weighed opportunities.

Amount of training for occupational pursuits. — Of the 1,305 former pupils represented in this study, 470 went to college. It is assumed that the high school fulfilled its preparatory function with regard to this group. Some of them were later found in occupations that did not require preparation in college, but, since they entered colleges and universities, it is assumed in their cases also that the high school prepared them for their main concern after graduation — entering college.

The occupational fields open to high-school pupils directly after leaving high school are, broadly, commercial and clerical positions, trades, and unskilled and semi-skilled labor. Clerical positions, such as bookkeeping, secretarial work, and various other kinds of office work, require a certain amount of training. Commercial service — or sales positions, such as are held by real estate and insurance agents, clerks in stores, salesmen, buyers, etc. — does not, in many cases at least, require special training except such as is learned on the job. However, this type of work is undoubtedly done more efficiently if one has had commercial training.

The skilled trades require special training, as is evidenced by the period of apprenticeship required before one is accepted as a master workman. This apprenticeship consists, as a rule, of the applicant's training on the job under master workmen. Efficient and practical training in school in various phases of skilled work is undoubtedly of great benefit to a beginner, but it is not held to be absolutely necessary.

For the semi-skilled trades, or for workers engaged in manufacturing, mechanical, and production pursuits, and for transportation, public

service, personal service, etc., it might be debated whether any special training in high school is necessary. The amount of training usually requisite, varying from a few hours to a few weeks or months, might with advantage be better learned on the job.

The amount of training in commercial and industrial-arts work that graduates who did not go to college and discontinued pupils have had in the six Catholic high schools which they attended is given in Table 109. The number of graduates considered as engaged in commercial and clerical work is 273, although only 239 are listed under these fields of work in Table 104.[9] Some who were managers and proprietors were engaged in work essentially commercial in nature, and they have been included among those who required commercial preparation to carry on their work. This accounts for the larger number of commercial and clerical workers considered in the present table.

Of the 273 commercial and clerical workers who were graduated from high school, 33.3 per cent had one unit of commercial work, 23.4 per cent had two units, 23.1 per cent had three units, and 5.9 per cent

TABLE 109

NUMBERS AND PERCENTAGES OF FORMER PUPILS (EXCLUDING GRADUATES WHO ENTERED COLLEGE) ENTERING COMMERCIAL AND INDUSTRIAL PURSUITS AND THE NUMBER OF UNITS OF COMMERCIAL AND INDUSTRIAL-ARTS WORK THEY HAD TAKEN IN CATHOLC HIGH SCHOOLS

Number of Units of Commercial and Industrial-Arts Work	Graduates		Discontinued Pupils	
	Number	Percentage	Number	Percentage
Commercial:				
One unit	91	33.3	13	23.6
Two units	64	23.4	.....	.....
Three units	63	23.1	2	3.6
More than three units	16	5.9	.....	.....
No units of commercial work	39	14.3	40	72.7
Total	273	100.0	55	99.9
Industrial arts:				
One unit (mechanical drawing)	13	8.9	2	2.2
No units of industrial-arts work	133	91.1	88	97.8
Total	146	100.0	90	100.0

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had more than three units. Only 39, or 14.3 per cent, had no commercial training in high school.

One hundred and forty-six graduates were engaged in skilled and semi-skilled trades. It might be said that practically all entered these occupations with no specific training in high school, although 13, or 8.9 per cent, had one unit of mechanical drawing.

As has been shown in Table 52,[10] more than three-fourths of the pupils discontinuing from the Catholic high schools had Freshman or Sophomore standing at the time of withdrawal. This is probably true also of the discontinued pupils considered in this chapter. As commercial work in the Catholic high schools of this study was offered in the Junior and Senior years, many of the discontinued pupils had no commercial work. Fifty-five were engaged in commercial pursuits, and thirty-six of the fifty-five, or almost two-thirds, were occupied in sales positions, for the most part in drug stores and groceries. In such positions commercial preparatory training is helpful but not absolutely necessary. Of the fifty-five boys, only slightly more than a fourth had commercial training in the Catholic high schools.

Of ninety discontinued pupils engaged in the trades, only two had a unit of mechanical drawing. Fifty-one, or more than half, were engaged in miscellaneous trades. Training for the various occupations classed as miscellaneous trades would be difficult to provide in general high schools such as the Catholic high schools usually are.

RELIGIOUS, CIVIC, AND SOCIAL ACTIVITIES

Religious practices.—In Table 62[11] data were given on the observance of two religious practices by pupils in high school in 1936-37. These two practices were: (1) attendance at Mass on Sundays and six holydays or feast days of the Church, and (2) reception of the sacraments of penance and the Eucharist. The extent to which former pupils fulfill these two religious obligations is presented in Table 110.

With regard to attendance at Mass, 98.2 per cent of the graduates who went to college, 95.4 per cent of the graduates who did not enter college, and 91.4 per cent of pupils who discontinued before graduation go to Mass weekly or oftener. The small numbers in each group

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who did not answer the question may or may not fulfill their religious obligation of going to Mass on Sundays and holydays. There is a slight direct relationship between the number of years pupils attended Catholic high schools and church attendance. Graduates who went to college have the best record of the three groups.

In the matter of the reception of the sacraments, 90 per cent or more of each group exceed the minimum required by the Church. Slightly more than two in five graduates who went to college, about one in four graduates who did not enter college, and slightly more than one in four discontinued pupils received Holy Communion weekly or oftener. Graduates who went to college have the best record. Here, too, there is a slight relationship between the number of years of attendance in Catholic high schools and reception of the sacraments.

TABLE 110

NUMBERS AND PERCENTAGES OF FORMER PUPILS WHO ATTEND MASS AND RECEIVE COMMUNION AT DIFFERENT INTERVALS

Religious Activities	Graduates-on		Graduates		Discontinued	
	Number	Percentage	Number	Percentage	Number	Percentage
Attend Mass:						
Daily	50	10.6	3	0.6	11	3.8
Two or three times a week	40	8.5	25	4.6	17	5.8
Sundays and holydays	372	79.1	490	90.2	239	81.8
Occasionally	2	0.4	10	1.8	9	3.1
No answer	5	1.1	12	2.2	14	4.8
Do not attend	1	0.2	3	0.6	2	0.7
Total	470	99.9	543	100.0	292	100.0
Receive Communion:						
Daily	63	13.4	7	1.3	8	2.7
Two or three times a week	37	7.9	20	3.7	13	4.5
Weekly	97	20.6	99	18.2	55	18.8
Every two weeks	62	13.2	85	15.7	46	15.8
Monthly	148	31.5	243	44.8	102	34.9
Several times a year	28	6.0	31	5.7	19	6.5
Occasionally	22	4.7	30	5.5	20	6.8
No answer	11	2.3	24	4.4	25	8.6
Do not receive	2	0.4	4	0.7	4	1.4
Total	470	100.0	543	100.0	292	100.0

A partial explanation of the more frequent religious observances of graduates who went to college is that twenty are priests, six are students studying for the priesthood, and nine are teachers who are members of religious orders. They attend Mass and receive Communion daily, as a rule. Moreover, persons engaged in professional pursuits have different hours of work from the great body of graduates and discontinued pupils, who are not engaged in professional work. Very probably the latter group must be at their work earlier in the morning than the former group, and, therefore, do not have the opportunity to attend Mass and receive Communion.

The number of former pupils who stated that they did not fulfill their religious obligations is almost negligible in each group. Only one, a graduate who did not go to college, stated that he was a non-Catholic.

Religious organizations.—Graduates who did not go to college were members of distinctly religious organizations in greater percentages than representatives of either of the other two groups. The numbers and percentages of former pupils holding membership in certain religious or church societies are presented in Table 111. The Holy Name Society is the most common organization for men in Catholic parishes, and two-fifths of the graduates who went to college and two-fifths of pupils who withdrew before graduation belong to it. More than half the graduates who did not go to college are members. The percentages of each group that either did not answer the question or mentioned that they were not members of any church society are: 45.3 per cent of the graduates who went to college; 37.0 per cent of graduates who

TABLE 111
NUMBERS AND PERCENTAGES OF FORMER PUPILS WHO ARE MEMBERS OF CHURCH SOCIETIES

Church Societies	Graduates-on (470)		Graduates (543)		Discontinued (292)	
	Number	Percentage	Number	Percentage	Number	Percentage
Holy Name Society	192	40.9	294	54.1	117	40.1
Parish groups	70	14.9	49	9.0	29	9.9
Choir	8	1.7	14	2.6	10	3.4
Usher	1	0.2	5	0.9	1	0.3
Others	15	3.2	....	....	1	0.3
No answer	105	22.3	92	16.9	73	25.0
None	108	23.0	109	20.1	80	27.4

did not go to college; and 52.4 per cent of pupils who withdrew before graduation.

Civic activities.—Voting, paying taxes, cooperating and aiding in directing drives of various kinds for civic betterment were the usual civic activities mentioned by former pupils. Paying taxes—taxes on personal property, very likely — was mentioned by only 5.5 per cent of the graduates who went to college, by 3.7 per cent of graduates who did not enter college, and by 2.7 per cent of discontinued pupils. As the groups were largely composed of young men, very probably not many of them had taxable personal property.

In such activities as community chest drives 6.6 per cent of the "graduates-on," 3.3 per cent of graduates, and 2.1 per cent of discontinued pupils were active in conducting the campaigns.

The percentages of former pupils voting in a previous presidential election—that of 1936—are given in Table 112. In each group, almost all those of voting age voted. Only 4.5 per cent of the graduates who went to college, 4.6 per cent of graduates who did not enter college, and 3.8 per cent of non-graduates reported that they did not vote. A fourth of the "graduates-on," almost a half of graduates, and three-fifths of discontinued pupils were not of voting age in 1936.

Civic positions.—The six Catholic high schools of this study are located in cities of more than a hundred thousand population. Very probably the number of civic positions in proportion to the number of high-school pupils is much less in the larger cities than in the smaller cities and towns, or the number of high-school pupils to each position

TABLE 112

NUMBERS AND PERCENTAGES OF FORMER PUPILS VOTING IN THE 1936 PRESIDENTIAL ELECTION

	Graduates-on		Graduates		Discontinued	
	Number	Percentage	Number	Percentage	Number	Percentage
Voted	325	69.1	263	48.4	99	33.9
Did not vote	21	4.5	25	4.6	11	3.8
Not of age	118	25.1	246	45.3	176	60.2
No answer	6	1.3	9	1.7	6	2.1
Total	470	100.0	543	100.0	292	100.0

of public trust is much greater in the larger cities than in the smaller population centers. Hence, the attainment of a public position in a large city is an honor that few high-school graduates, especially the younger ones, achieve. The number of civic positions held by former pupils of these Catholic high schools are given in Table 113. The data in the table are noteworthy in the respect that places of public trust seem to be held chiefly by persons who have gone to college.

TABLE 113
CIVIC POSITIONS HELD BY FORMER PUPILS

Civic Positions	Graduates-on	Graduates	Discontinued
	Number	Number	Number
Member of board of safety	2	1	....
Safety director	....	1	....
Deputy prosecutor	4	....	....
Officer in civic league	3	....	....
Social security board member	1	....	....
State senator	1	....	....
Assistant states attorney	2	....	....
Member of board of health	2	....	....
City health physician	1	....	....
Juvenile court attorney	1	....	....
Secretary to states attorney	1	....	....
Board committee member	....	1	....
Chairman, education committee	....	....	1
Member of public relations committee	....	....	1

Organizations and clubs.—If the club activities of former pupils may be taken as an indication of the extent to which they engaged in social activities offered in their cities, it may be said that the young men of this study were an active group. The extent of participation given in Table 114 is in direct proportion to the amount of education these former pupils received. If those who gave no answer to the question may be considered as belonging to no organizations, then 31.3 per cent of the graduates who went to college, 40.9 per cent of graduates who did not enter college, and 46.3 per cent of non-graduates did not participate in clubs and organizations. Bell, in an investigation of city youth in Maryland, reported that 69.2 per cent, both in and out of school, did not belong to any club.[12]

Graduates who went to college are represented in professional organizations in greater percentages than in any others; graduates who

12 Bell, *op. cit.*, pp. 168-69.

TABLE 114

NUMBERS AND PERCENTAGES OF FORMER PUPILS BELONGING TO DIFFERENT ORGANIZATIONS AND CLUBS

Organizations and Clubs	Graduates-on (470)		Graduates (543)		Discontinued (292)	
	Number	Percentage	Number	Percentage	Number	Percentage
High school alumni	35	7.4	21	3.9	1	0.3
Fraternities	73	15.5	5	0.9	2	0.7
Knights of Columbus	77	16.4	50	9.2	19	6.5
Other fraternal organizations	36	7.7	36	6.6	16	5.5
Social clubs	51	10.9	48	8.8	21	7.2
Athletic clubs	49	10.4	57	10.5	23	7.9
Church organizations	64	13.6	113	20.8	53	18.2
Professional clubs	84	17.9	24	4.4	10	3.4
Literary-dramatic clubs	40	8.5	19	3.5	5	1.7
Civic groups	27	5.7	22	4.1	4	1.4
Music groups	5	1.1	10	1.8	6	2.1
Scouts	3	0.6	3	0.6	7	2.4
Military	8	1.7	8	1.5	2	0.7
College alumni	37	7.9	....	....	....	....
Miscellaneous	32	6.8	45	8.3	39	13.3
No answer	75	16.0	93	17.1	49	16.8
None	72	15.3	129	23.8	86	29.5

did not go to college and non-graduates are members of clubs sponsored by the churches but not essentially of a religious nature. Fraternities claim 15.5 per cent of "graduates-on" and less than one per cent of the other two groups. Membership in the Knights of Columbus is held by 16.4 per cent of graduates who went to college, 9.2 per cent of graduates who did not enter college, and 6.5 per cent of discontinued pupils. As membership in this organization is open only to adult men, the percentages of graduates and discontinued pupils, many of whom are quite young, would naturally not be so large as for graduates who went to college.

Positions or offices in clubs.—The numbers of former pupils who are active in clubs not merely as participants but in a directive capacity are given in Table 115. Approximately one in seven of the graduates who went to college, one in eight of graduates who did not go to college, and one in fourteen non-graduates hold offices in the organizations in which they are members.

RECREATIONAL ACTIVITIES

Amusements and recreations.—On the average, almost two recreational activities were mentioned by each former pupil. The numbers

TABLE 115

NUMBERS OF FORMER PUPILS HOLDING OFFICES OR POSITIONS IN CLUBS AND ORGANIZATIONS

Positions	Graduates-on	Graduates	Discontinued
President	12	15	8
Vice-president	6	8	2
Secretary	11	12	1
Treasurer	12	8	1
Member of board	7	4	1
Trustee	2	3	....
Committee member	6	2	3
Historian	2	....	....
Chairman	5	11	....
Scoutmaster	2	1	2
Representative	3	....	1
Military officer	2	2	2
Total	70	66	21

mentioning different group activities and the percentages that these activities are of all recreations are presented in Table 116. The terms used for group amusements are self-explanatory with the exception of "sedentary activities," in which are included reading, attending motion picture shows, and listening to the radio.

The forms of recreation most frequently mentioned by graduates who went to college and by those who did not are individual and dual athletic events; for discontinued pupils sedentary activities hold first place. Both these types of amusements have either first or second place

TABLE 116

NUMBERS AND PERCENTAGES OF PLAY AND OTHER RECREATIONAL ACTIVITIES CHIEFLY ENGAGED IN BY FORMER PUPILS

Chief Recreational Activities	Graduates-on		Graduates		Discontinued	
	Number	Percentage	Number	Percentage	Number	Percentage
Team games	104	11.7	206	21.0	120	24.5
Individual and dual athletic events	296	33.2	280	28.6	129	26.3
Crafts	7	0.8	15	1.5	7	1.4
Sedentary activities	260	29.2	236	24.1	132	26.9
Outdoor recreational activities	94	10.6	90	9.2	50	10.2
Artistic expression activities	21	2.4	28	2.9	7	1.4
Social activities	108	12.1	124	12.7	45	9.2
Total	890	100.0	979	100.0	490	99.9

among recreational activities of former pupils, and the percentages for each group do not vary greatly.

The crafts and artistic-expression activities apparently do not appeal greatly to any group of former pupils. With the exception of the sedentary activities, the types of recreations of these young men are those in which companionship is possible.

The numbers in each group mentioning reading as a chief amusement (the data are not given specifically in the table) are not large in comparison with the numbers who mention attendance at motion picture shows. Only seventy-one graduates who went to college, thirty graduates who did not enter college, and twenty-eight discontinued pupils stated that reading was one of their chief recreations.

Team games lose their appeal as groups grow older. Only 11.7 per cent of the favorite recreational activities of graduates who went to college are team games, while the corresponding percentages for graduates who did not go to college and for discontinued pupils, respectively, are 21.0 and 24.5. The graduates who entered colleges are on the average older than former pupils in the other two groups, as was shown in Table 112,[13] in which the percentages in each group not of voting age were given.

This tendency for certain amusements to lose their appeal as persons grow older and for others to gain in popularity is brought out more clearly in Table 117, in which the percentages of chief recreations are

TABLE 117

PERCENTAGES OF PLAY AND OTHER RECREATIONAL ACTIVITIES CHIEFLY ENGAGED IN BY FORMER PUPILS AND BY PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS IN 1936-37

Chief Recreational Activities	Graduates-on	Graduates	Discontinued	1936-37 Pupils
Team games	11.7	21.0	24.5	42.0
Individual and dual athletic events	33.2	28.6	26.3	19.2
Crafts	0.8	1.5	1.4	2.4
Sedentary activities	29.2	24.1	26.9	25.3
Outdoor recreational activities	10.6	9.2	10.2	4.3
Artistic expression activities	2.4	2.9	1.4	1.6
Social activities	12.1	12.7	9.2	5.2
Total	100.0	100.0	99.9	100.0

13 P. 241.

given for former pupils and for pupils in school in 1936-37. In proceeding from the older to the younger groups, there is a steady increase in the percentages representing team games and crafts, and a general decrease in the percentages of individual and dual athletic events, artistic expression activities, and social activities. The percentages representing sedentary activities are about the same except for the "graduates-on" group. The greater percentage for the college group is due in some measure to the large number who mentioned reading as a favorite pastime. The common appeal of motion pictures probably accounts for the lack of great variation in the percentages for sedentary activities for the four groups.

Types of radio programs.—The numbers of former pupils listening most often to the different types of radio programs and the percentages that each type is of all mentioned are given in Table 118. Variety programs rank first in each group, but for this type of program there is a steady increase in the percentages representing each group in proceeding from "graduates-on" to discontinued pupils. Modern music holds second rank. Differences in interests are shown only in the third and lower ranking types. Symphony concerts and world news rank third and fourth, respectively, for graduates who went to college; drama and

TABLE 118

NUMBERS AND PERCENTAGES OF TYPES OF RADIO PROGRAMS LISTENED TO MOST OFTEN BY FORMER PUPILS

Types of Programs	Graduates-on		Graduates		Discontinued	
	Number	Percentage	Number	Percentage	Number	Percentage
Variety programs	267	28.9	336	34.9	184	36.5
Drama, stories	64	6.9	78	8.1	63	12.5
Modern music	185	20.1	220	22.8	87	17.3
World news	101	11.0	78	8.1	44	8.7
Symphony concerts	128	13.9	72	7.5	40	7.9
Athletic and sporting events	36	3.9	58	6.0	16	3.2
Amateur hours	17	1.8	17	1.8	19	3.8
Band music	7	0.8	8	0.8	3	0.6
Religious topics	11	1.2	5	0.5	4	0.8
Political talks	29	3.1	25	2.6	5	1.0
Talks on scientific topics	8	0.9	3	0.3	3	0.6
Miscellaneous	69	7.5	64	6.6	36	7.1
Total	922	100.0	964	100.0	504	100.0

stories and world news tie for third and fourth place for graduates who did not enter college; and the same types of programs are in third and fourth place, respectively, for discontinued pupils. Talks on religious, scientific, and political topics are, apparently, not listened to to any great extent by former pupils in any group.

Approximately 10 per cent of each group did not answer the question. Slightly more than 6 per cent of each group mentioned that they did not listen exclusively to any particular program.

That greater percentages of older persons turn to the radio for purposes other than light entertainment is illustrated in Table 119, in which percentages representing the different types of programs are given for the three groups of former pupils and for all boys in the twenty-one Catholic high schools in 1936-37. Smaller percentages of "graduates-on," graduates, and discontinued pupils than of high-school pupils listen to variety programs and drama and stories; and larger percentages of former pupils than of present pupils listen to modern music, world news, symphony concerts, and talks on religious, scientific, and political topics.

READING ACTIVITIES

Types of books read.—Perhaps it is to be expected that persons away from the influence of the school do not read books to the same

TABLE 119

PERCENTAGES OF TYPES OF RADIO PROGRAMS LISTENED TO MOST OFTEN BY FORMER PUPILS AND BY PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS IN 1936-37

Types of Programs	Graduates-on	Graduates	Discontinued	1936-37 Pupils
Variety programs	28.9	34.9	36.5	50.1
Drama, stories	6.9	8.1	12.5	24.1
Modern music	20.1	22.8	17.3	7.7
World news	11.0	8.1	8.7	5.5
Symphony concerts	13.9	7.5	7.9	3.3
Athletic and sporting events	3.9	6.0	3.2	2.6
Amateur hours	1.8	1.8	3.8	2.2
Band music	0.8	0.8	0.6	1.8
Religious topics	1.2	0.5	0.8	0.5
Political talks	3.1	2.6	1.0	....
Talks on scientific topics	0.9	0.3	0.6	....
Miscellaneous	7.5	6.6	7.1	2.2
Total	100.0	100.0	100.0	100.0

extent as young people still in school, but the excellence of the types read should improve with the amount of schooling groups of persons received. This latter statement is demonstrated in Table 120, in which are presented the numbers of former pupils reporting to have read certain types of books and the percentages that these types are of all read. The former statement regarding the reading of books by out-of-school persons in comparison with pupils still in school is brought out in Tables 121 and 122.

TABLE 120

NUMBERS AND PERCENTAGES OF DIFFERENT TYPES OF BOOKS READ BY FORMER PUPILS

Types of Books	Graduates-on		Graduates		Discontinued	
	Number	Percentage	Number	Percentage	Number	Percentage
Fiction:						
Standard authors	43	6.9	37	10.2	24	10.3
Modern good	190	30.3	119	32.9	67	28.9
Modern light	66	10.5	58	16.1	73	31.5
Other types:						
School textbooks	18	2.9	6	1.7	3	1.3
Biography	53	8.5	25	6.9	14	6.0
Travel, exploration, true adventure	24	3.8	9	2.5	4	1.7
Science and mathematics	37	5.9	9	2.5	6	2.6
Modern social problems	43	6.9	18	5.0	5	2.2
Psychology and philosophy	42	6.7	22	6.1	8	3.4
Vocational and educational method	27	4.3	19	5.3	5	2.2
History	22	3.5	7	1.9	6	2.6
Sports, hobbies, and practical arts	11	1.8	2	0.6	3	1.3
Poetry, drama, essay	10	1.6	....	....	4	1.7
Fine arts	8	1.3	5	1.4	....	....
Religion	15	2.4	15	4.1	4	1.7
Other	17	2.7	10	2.8	6	2.6
Total	626	100.0	361	100.0	232	100.0

The percentage of standard authors read by graduates who went to college is smaller than for graduates who did not go to college and for discontinued pupils. There is no great difference in percentages of all three groups for "modern good" books. In almost all other types, however, the percentages represent a relationship between excellence in

TABLE 121

NUMBERS AND PERCENTAGES OF FORMER PUPILS WHO DID NOT MENTION ANY BOOK THEY HAD READ RECENTLY

	Graduates-on (470)		Graduates (543)		Discontinued (292)	
	Number	Percentage	Number	Percentage	Number	Percentage
No answer	112	23.8	195	35.9	99	33.9
Read none	50	10.6	142	26.2	56	19.2
Total	162	34.4	337	62.1	155	53.1

reading and the amount of schooling the different groups received. There is an increase in the percentage of light reading reported by the different groups in proceeding from "graduates-on" to discontinued pupils, and a steady decrease in almost all types of non fiction. The percentages of fiction read by the different groups are: "graduates-on," 47.7; graduates, 59.2; and discontinued pupils, 70.7.

TABLE 122

PERCENTAGES THAT CERTAIN TYPES OF BOOKS ARE OF ALL BOOKS READ BY FORMER PUPILS AND BY PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS IN 1936-37

Types of Books	Graduates-on	Graduates	Discontinued	1936-37 Pupils
Fiction:				
Standard authors	6.9	10.2	10.3	14.0
Modern good	30.3	32.9	28.9	16.9
Modern light	10.5	16.1	31.5	48.6
Other types:				
School textbooks	2.9	1.7	1.3	0.2
Biography	8.5	6.9	6.0	5.6
Travel, exploration, true adventure	3.8	2.5	1.7	3.3
Science and mathematics	5.9	2.5	2.6	1.0
Modern social problems	6.9	5.0	2.2	1.4
Psychology and philosophy	6.7	6.1	3.4	0.4
Vocational and educational method	4.3	5.3	2.2	0.2
History	3.5	1.9	2.6	1.3
Sports, hobbies and practical arts	1.8	0.6	1.3	1.4
Poetry, drama, and essay	1.6	....	1.7	3.2
Fine arts	1.3	1.4	....	0.1
Religion	2.4	4.1	1.7	1.6
Other	2.7	2.8	2.6	0.8
No answer	23.8	35.9	33.9	11.2
Read none	10.6	26.2	19.2	1.1

The numbers and percentages of former pupils who either did not answer the question on the books they had recently read or who mentioned that they had read none recently are given in Table 121. More than a third (34.4 per cent) of the graduates who went to college; more than three-fifths (62.1 per cent) of the graduates who did not go to college; and more than a half (53.1 per cent) of the discontinued pupils, some of whom were still in other schools, did not answer the question on the books they had read.

TABLE 123

NUMBERS AND PERCENTAGES OF TYPES OF MAGAZINES READ BY FORMER PUPILS

Types of Magazines	Graduates-on		Graduates		Discontinued	
	Number	Percentage	Number	Percentage	Number	Percentage
Adventure and western	1	0.1	14	1.5	7	1.6
Business	16	1.6	18	1.9	4	0.9
Detective and mystery	5	0.5	15	1.6	2	0.5
Elite and smart	26	2.6	12	1.2	9	2.1
Farm	1	0.1	3	0.3	2	0.5
Fine arts	3	0.3	2	0.2	2	0.5
Fraternal	2	0.2	10	1.0	5	1.2
Foreign language	....	....	....	....	....	....
Health	....	....	1	0.1	....	....
Hobbies	2	0.2	6	0.6	2	0.5
Humor	1	0.1	....	....	....	....
Juvenile	1	0.1	10	1.0	13	3.0
Liberal	28	2.8	6	0.6	2	0.5
Literary criticism	1	0.1	2	0.2	....	....
Local	....	....	....	....	....	....
Monthly miscellanies (medium)	83	8.1	98	10.2	36	8.3
Monthly reviews	9	0.9	4	0.4	3	0.7
Motion picture	2	0.2	6	0.6	4	0.9
Women's	3	0.3	2	0.2	1	0.2
Popular science	23	2.3	43	4.5	45	10.4
Professional	57	5.6	15	1.6	4	0.9
Quality group	66	6.5	24	2.5	9	2.1
Radio	2	0.2	8	0.8	5	1.2
Racial	1	0.1	....	....	....	....
Digests	202	19.9	134	13.9	47	10.8
Religious	28	2.8	39	4.1	18	4.1
Sports and outdoors	20	2.0	34	3.5	22	5.1
Trades	12	1.2	14	1.5	2	0.5
Travel	1	0.1	1	0.1	....	....
True story and love	....	....	3	0.3	2	0.5
Weekly miscellanies	248	24.4	304	31.6	118	27.3
Weekly news	117	11.5	54	5.6	27	6.2
Pictorial	53	5.2	80	8.3	41	9.5
Total	1,014	100.0	962	99.9	432	100.0

Only 12.3 per cent of the pupils in twenty-one Catholic high schools in 1936-37 did not report reading books, as is shown in Table 122 in which are given the percentages of different types of books read by the three groups of former pupils and by pupils in school. The same tendencies mentioned in connection with a preceding table are apparent here: the type of reading is related to the amount of schooling and to the age of the different groups. The exceptions are for fiction by standard authors and for poetry, drama, and essays, in which the influence of the school on the pupils in school is at work.

Types of magazines read.—The types of magazines read most often by "graduates-on," graduates, and discontinued pupils are presented in Table 123. "Weekly miscellanies" and the "Digests" hold first and second rank, respectively, for all three groups of former pupils. "Weekly news," "Monthly miscellanies," and "Popular science" rank third for graduates who went to college, for graduates who did not enter college, and for non-graduates, respectively.

The five magazines most frequently reported by former pupils are, according to rank order: for "graduates-on," *Reader's Digest* (194), *Collier's* (121), *Time* (103), *Saturday Evening Post* (77), and *Life* (48); for graduates who did not go to college, *Reader's Digest* (123), *Collier's* (119), *Liberty* (84), *Life* (71), and *Saturday Evening Post* (63); for discontinued pupils, *Collier's* (46), *Reader's Digest* (39), *Life* (37), *Liberty* (35), and *Saturday Evening Post* (25).

A third of "graduates-on," three-fifths of graduates, and a half of discontinued pupils did not mention having read a book,[14] but it would not be a justifiable conclusion to say that former pupils, as a group, do not read. From a consideration of Table 124, in which are presented

TABLE 124

NUMBERS AND PERCENTAGES OF FORMER PUPILS WHO DID NOT MENTION MAGAZINES THEY USUALLY READ OR WHO READ NONE

	Graduates-on (470)		Graduates (543)		Discontinued (292)	
	Number	Percentage	Number	Percentage	Number	Percentage
Read none	13	2.8	36	6.6	23	7.9
No answer	32	6.8	39	7.2	30	10.3
Total	45	9.6	75	13.8	53	18.2

14 Table 121, p. 249.

the numbers and percentages of former pupils who did not answer the question on the magazines they usually read or who mentioned that they read none, it is evident that many former pupils from each group read magazines rather than books. The percentages that did not mention having read a magazine are: "graduates-on," 9.6; graduates, 13.8; and discontinued pupils, 18.2.

The percentages of the different types of magazines read by former pupils and by pupils in school in 1936-37, given in Table 125, follow

TABLE 125

PERCENTAGES OF TYPES OF MAGAZINES READ BY FORMER PUPILS AND BY PUPILS IN TWENTY-ONE CATHOLIC HIGH SCHOOLS IN 1936-37

Types of Magazines	Graduates-on	Graduates	Discontinued	1936-37 Pupils
Adventure and western	0.1	1.5	1.6	2.9
Business	1.6	1.9	0.9	....
Detective and mystery	0.5	1.6	0.5	2.2
Elite and smart	2.6	1.2	2.1	1.3
Farm	0.1	0.3	0.5	0.1
Fine arts	0.3	0.2	0.5	0.1
Fraternal	0.2	1.0	1.2	0.5
Foreign language	....	....	....	....
Health	....	0.1	....	0.1
Hobbies	0.2	0.6	0.5	1.6
Humor	0.1	....	....	0.2
Juvenile	0.1	1.0	3.0	11.5
Liberal	2.8	0.6	0.5	....
Literary criticism	0.1	0.2	....	....
Local	....	....	....	....
Monthly miscellanies (medium)	8.1	10.2	8.3	5.2
Monthly reviews	0.9	0.4	0.7	....
Motion picture	0.2	0.6	0.9	0.5
Women's	0.3	0.2	0.2	0.4
Popular science	2.3	4.5	10.4	13.6
Professional	5.6	1.6	0.9	....
Quality group	6.5	2.5	2.1	0.9
Radio	0.2	0.8	1.2	0.4
Racial	0.1	....	....	....
Digests	19.9	13.9	10.8	9.7
Religious	2.8	4.1	4.1	3.2
Sports and outdoors	2.0	3.5	5.1	9.8
Trades	1.2	1.5	0.5	....
Travel	0.1	0.1	....	1.0
True story and love	....	0.3	0.5	0.4
Weekly miscellanies	24.4	31.6	27.3	26.2
Weekly news	11.5	5.6	6.2	4.2
Pictorial	5.2	8.3	9.5	4.0
Read many	0.1	0.4	0.2	0.4
Read none	2.8	6.6	7.9	2.4
No answer	6.8	7.2	10.3	6.0

the same general trends noted in regard to types of books read: there is some relationship between age and the amount of schooling of pupils and the types of magazines read. Thus greater percentages of "graduates-on" and graduates read the liberal, quality group, professional, digests, and, to some extent, the weekly news magazines than did discontinued pupils or pupils in school in 1936-37. On the other hand, the percentages of the graduate groups reading the pulp magazines, juvenile type, and popular science are, with the exception of detective and mystery stories, smaller than for the discontinued and the 1936-37 groups. In many instances, however, the numbers of pupils reporting having read certain types of magazines are too small for purposes of valid conclusions.

SUMMARY OF THE CHAPTER

The schools.—The former pupils who are the subjects of this part of the present study attended six Catholic high schools for boys, located in five cities in Indiana, Illinois, and Michigan. The size of the schools ranged from 245 to 700 pupils, and the size of the cities ranged from more than a 100,000 population to more than 3,000,000.

Number of former pupils represented.—Slightly more than a fifth of the graduates of the six schools combined, excluding those who entered high school in 1933, were contacted by the interview-questionnaire method and by mailing inquiry forms to former pupils who entered these schools in 1928. Only slightly more than one in twenty discontinued pupils filled out questionnaires. The total number of graduates who answered the questionnaire was 1,013, 194 of whom entered in 1928. Only 292 discontinued pupils responded, and thirty of these entered high school in 1928. Almost half the graduates who answered the questionnaire had entered college. Of the total number of former pupils who filled out inquiry forms, more than a third had entered college, slightly more than two-fifths were graduates who did not enter college, and more than a fifth were discontinued pupils.

Length of attendance at college.—Of graduates who went to college, a fifth attended one year, another fifth attended two years, a tenth attended three years, and about a half continued four years or more. More than two in five of all graduates who attended college earned a degree. Almost a fifth were still in school in October or November, 1937. About a third of the degrees earned were A.B. degrees.

Further education on secondary level.—More than a half of the high-school graduates who did not go to college and more than three-fifths of discontinued pupils did not receive formal schooling of any kind beyond high school. One in five graduates attended a private business school, and about one in eight took up some technical or trade course. One in seventeen discontinued pupils entered business college, and one in ten pursued a technical or trade course. More than two-fifths of the discontinued pupils entered some other high school, usually a public high school; about one in six graduated from high school; and one in twelve entered college.

Full-time and part-time schooling.—A fourth of the graduates who did not attend college and about an eighth of discontinued pupils continued full-time education in some school on secondary level, such as business college, trade school, or post-graduate high school. About a sixth of the graduates who did not go to college and more than a tenth of non-graduates continued their education while they were engaged in full-time employment. More than a half of the graduates who did not go to college and more than three-fifths of the discontinued pupils received no further schooling after finally leaving school.

Reasons for withdrawing from school.—Almost a third of the pupils who withdrew from school before graduation gave as their reason for discontinuing that they were entering public schools. About a sixth dropped out because they had to help support the family, and a tenth, because the expenses of school were too great. Approximately two-fifths mentioned one or more of the following reasons for withdrawing: failure in school work, lack of interest, or training for chosen occupation not available. About two in five pupils withdrew, therefore, for some reason over which the school had some control.

Occupational pursuits.—Slightly more than a fourth of the graduates who entered college engaged in the professions and a third in commercial and clerical service. More than two-fifths of the graduates who did not enter college followed commercial and clerical occupations, and more than a fourth were in the trades. Almost a fifth of the discontinued pupils were making their living in commercial and clerical service; almost a third, in trades; and a seventh in "other occupations," which includes transportation, public service, personal service, and common labor.

Subjects of least value and of most value.—The five subjects regarded by graduates who went to college as being most valuable to them in their work are, according to rank: English, mathematics, Latin, chemistry, and bookkeeping. Graduates who did not go to college thought English, mathematics, bookkeeping, business arithmetic, and typewriting were of most value to them. Discontinued pupils stated that mathematics, English, Latin, business arithmetic, science, and chemistry were most valuable to them.

The five subjects of least value to graduates who went to college and graduates who did not are the same: Latin, history, modern foreign languages, chemistry, and geometry. For the discontinued pupils, the subjects of least value are: Latin, history, algebra, modern foreign languages, and biology.

Desired subjects.—The subjects that former pupils wished they had taken in high school are, for the most part, among those that were offered in these schools. Slightly more than a tenth of the graduates who did not go to college and a fifth of discontinued pupils wished they had had the chance to take industrial arts. Graduates who went to college wanted, in general, more work in academic and commercial subjects. The same tendency is observable in the desires of graduates who did not go to college, and in discontinued pupils. In addition, former pupils who did not go to college expressed a wish for industrial-arts subjects. About a fourth of the "graduates-on," about a fifth of the graduates, and more than a fourth of the discontinued pupils did not express themselves regarding desired subjects.

Reasons for choosing first jobs.—A fourth of the graduates who went to college chose their first jobs because they were prepared for them in college, but only about one in thirteen graduates who did not go to college and one in twenty discontinued pupils chose their first jobs because they were prepared for them in school. "Special interest in the work" was mentioned as one of the reasons for choosing their positions by a third of the "graduates-on" and by a fifth of the graduates and discontinued pupils; "good prospects for the future," by more than a fourth of the "graduates-on" and discontinued pupils and by about a third of the graduates; and "unable to find any other position," by a fourth of the "graduates-on" and discontinued pupils and by a third of the graduates.

Amount of training for positions. — All the former pupils who entered college, it is assumed, were prepared, from the point of view of credits earned, to pursue college work. Of the graduates who did not enter college, six in seven who entered the commercial or clerical occupations had one, two, three, or more units of commercial work in high school. Only obout one in ten of those who entered the trades had taken industrial-arts work, the extent of their direct preparation being a unit in mechanical drawing. Of pupils who withdrew before graduation, one in four who entered commercial or clerical service had a unit of commercial work in high school, and only two of the ninety who entered the trades had mechanical drawing.

Religious practices.—Former pupils, whether graduates or discontinued pupils, fulfill their religious obligation in regard to attendance at Mass on Sundays and holydays of obligation and to the reception of the sacraments. Almost all of the graduates, and more than nine in ten discontinued pupils attend Mass weekly or oftener. Almost nine in ten graduates who went to college, more than eight in ten graduates who did not enter college, and about eight in ten discontinued pupils receive the sacraments monthly or oftener. Religious practices increase with amount of schooling.

More than half the "graduates-on," more than three-fifths of graduates, and about half of discontinued pupils belong to some religious society.

Extent of voting.—Of those of voting age, about one in sixteen graduates who went to college, one in twelve graduates who did not go to college, and about one in nine discontinued pupils did not vote in the last presidential election.

Clubs and organizations.—More than two-thirds of the "graduates-on," approximately three-fifths of the graduates, and more than a half of the discontinued pupils belonged to some club that was social, cultural, or fraternal in nature. One in seven graduates who went to college, about one in eight graduates who did not go to college, and one in fourteen discontinued pupils held office in the clubs.

Recreational activities. — The chief recreational activities of all groups are individual and dual athletic events and sedentary activities. Unlike the leisure-time pursuits of pupils in school in 1936-37, team

games no longer comprise the chief recreational diversion of pupils who are out of high school.

Radio programs.—In general, there is a small but somewhat constant increase in the excellence of the type of radio programs listened to most often by former pupils with increase in age and schooling. On the other hand, the percentages representing entertainment programs decrease as the amount of education groups received and their ages increase. Variety programs and modern music, two purely entertainment programs, hold first and second place, respectively, for all three groups of former pupils.

Types of books read.—In books read, fiction comprises about half the reading reported by graduates who went to college, three-fifths of that reported by graduates who did not go to college, and seven-tenths of that mentioned by discontinued pupils. A third of the "graduates-on," three-fifths of the graduates, and a half of the discontinued pupils did not mention having read any book recently. Average age and extent of educational opportunities are factors in determining excellence of reading.

Types of magazines read.—The same general tendencies with regard to books read hold true for magazines read. But only one in ten of the graduates who went to college, about one in ten of the graduates who did not enter college, and about two in ten discontinued pupils did not mention one or more magazines as usually read.

Did the school experiences of former pupils seemingly influence their religious activities, their leisure-time activities, their civic and social activities? Did the school offering prepare them for their occupational pursuits? Was an academic training necessary for the types of activities in which they are engaged?

These and other questions raised in previous sections are answered in the following chapter. To answer some of them conclusively, however, additional research would be needed on the following topics:

(1) What is the nature and extent of guidance, both educational and vocational, in the schools of this study?

(2) What becomes of the discontinued pupils who leave high school before graduation? The evidence in this study is not extensive enough to give a reliable answer.

(3) What are the reasons for failure and withdrawal from school? The data presented in this study give indications why pupils fail, and there is some evidence as to why they discontinue school.

(4) What is the rank-order of such factors as socio-economic status, intelligence, achievement, ethnic origins, and school offerings in relation to withdrawal from school?

(5) What is the rank-order of the factors of socio-economic status, intelligence, ethnic origins, and school offerings on failure?

(6) What factors condition the success in certain subjects of many pupils with low intelligence quotients?

CHAPTER IX

EVALUATION OF THE CURRICULUM

THE PURPOSE OF THE CHAPTER

In preceding chapters various types of data have been presented for twenty-one Catholic high schools for boys in the states comprising the North Central Association of Colleges and Secondary Schools. The data concern the offerings of the schools, the contents and aims of textbooks in use, the socio-economic status and country of birth of fathers of pupils, the intelligence, the educational and vocational plans, and the success in school work of the pupils, their interests and activities, and the relationships of some of these factors. In addition, a follow-up study of former pupils of six of the twenty-one schools has been presented in Chapter VIII.

The purpose of the study, as suggested in the Introduction, is to appraise the suitability of the educational offerings of Catholic high schools for boys in the North Central Association area on the bases of the pupil characteristics enumerated above. This appraisal is presented in the present chapter. Subjects and subject matter are first reviewed in the light of the aims of the textbooks in use, of pupil participation in activities related to certain subjects, and of pupil ability. The specific curriculums are then examined from the point of view of pupils' aspirations, interests, and characteristics, and of the activities and interests of former pupils.

The supporting data and the conclusions apply specifically to the twenty-one Catholic high schools for boys, but, in general, they also apply to all the high schools for boys that were contacted in the course of this study. In this chapter the term "Catholic high schools" refers only to the group of twenty-one schools.

THE PUPIL

The secondary-school population is no longer composed almost entirely of pupils from the higher socio-economic levels, of pupils who intend to go to college, or of intellectually élite pupils. Youth from all socio-economic classifications and from various intellectual levels, with

a variety of plans and interests, are in the secondary school. The high school is no longer merely a preparatory school for college, but it is or it should be at the same time a preparatory school for life. The curriculum, therefore, must be more than merely the college preparatory one if it is to serve modern youth effectively.

Boys in the Catholic high schools differ little from those in public high schools. The comparative data presented in earlier parts of this study show that on the basis of socio-economic status they are somewhat less selected than public school pupils; in the matter of intelligence, they are slightly superior, especially in the first two years of high school; from the point of view of the numbers failing in the various subjects, they do not differ greatly; from the standpoint of their educational and vocational plans, they are much the same, especially in the percentages planning to enter higher economic callings; and from the view of interests and activities, they are similar. It cannot be said, therefore, from the data presented in this study, that the offerings of the Catholic high school for boys need be more restricted or more traditional than the educational program in public schools in so far as boys are concerned.

THE OFFERINGS

The programs of studies in the Catholic high schools of this study are remarkably uniform. The offerings are largely the traditional ones, three-fourths of the units being in English, social studies, foreign language, mathematics, and science. Commercial subjects comprise a tenth of the program, but industrial arts, with the exception of mechanical drawing, are offered in only two schools. Group music in band, orchestral, and choral work is offered in almost all schools, but the graphic and plastic arts are almost completely neglected.

The average number of units offered in the schools is 29.9, and of these, 11.5 units — excluding the equivalent of 3.1 units in religion and 0.4 unit in physical training — are required. Besides religion and physical training, the number of units generally required in the different subjects are: four in English, 2.3 in social studies, two in mathematics (algebra and geometry), two in foreign language (usually Latin), and 1.5 in science. The subjects of the first two years are, in most cases, required. They are, as a rule, religion, English, algebra, geometry, Latin, and science or a social science. The electives, which, for the most part,

are in academic and commercial subjects, are available only in the third and fourth years.

The pupils, therefore, take the academic subjects, group music, and, in most of the schools, some commercial work. They do not have the opportunity, generally, to enroll in appreciation subjects, with the exception of literature, in graphic and plastic arts, or in industrial arts.

TEXTBOOKS AND SUBJECT MATTER

The teachers in the Catholic high schools of this study rely to a great extent on a basic textbook in each of the following subjects: English, social studies, sciences, foreign languages, and mathematics. In mathematics and foreign language there is little departure from the textbook, but in social studies and sciences teachers often bring in materials for illustration, application, and discussion. In English, besides anthologies in literature, the reading of one book a month is a usual requirement. Reference to outside readings, especially of a current nature, in other subjects is not carried on extensively. The content of textbooks in use in these schools, therefore, is largely the only subject matter of instruction.

RELIGION

Aims and content.—An average of 3.1 units in religion is offered in twenty-one schools. The common aims of the courses are to form religious character and to give pupils a knowledge of their religion so that they may be able to give an account of it and to practice it. The content of the courses, besides providing material for the realization of these aims, contains much related subject matter, such as the rights and duties of citizenship, the necessity of obedience to properly constituted authority, and the duties towards neighbors and self.

Religious practices.—Data have been presented only on the achievement of one of the aims — the practice of certain religious acts requisite to good standing in the Catholic Church. These acts are the attendance at Mass on Sundays and six holydays, and the reception of the sacraments of penance and the Eucharist during the Easter season. Practically all pupils and former pupils fulfill these two important religious obligations. Five in ten pupils in school attend Mass oftener than is required, and more than ninety-five in a hundred receive the sacraments oftener than is of obligation. That the effectiveness of the reli-

gious program in these respects is not entirely due to home influence is seen in the fact that the scale of percentages representing present religious practice for former pupils shows an increase for each additional amount of schooling.

Th results of religious instruction do not, however, carry over to a large extent in certain activities which the religious program in the schools might be expected to affect. Thus, not many pupils, either in or out of school, read books or magazines of a religious nature, and few listen to such radio programs as the "Catholic Hour." There is, however, an increase from Freshmen to Seniors in the percentages of pupils reading Catholic books, and, considering pupils in school and former pupils, the percentages increase with age and amount of schooling. This is not true, however, for the reading of religious magazines. The percentages listening to religious programs also increase, in general, with age and amount of schooling, but the numbers listening to religious programs are small.

More than half the graduates who went to college, about two-thirds of the graduates who did not go to college, and about half the discontinued pupils hold membership in religious organizations or societies sponsored by the parish churches. While the influence of the church is probably greater than that of the school in attracting membership to religious organizations sponsored by the church, the school's influence probably has some effect on all three groups of former pupils and especially on graduates who did not go to college.

Conclusions.—On the bases of pupils' regular attendance at Mass and frequent reception of the sacraments, the curriculum, or the religious phase of it, is effective. From the point of view of membership in distinctly religious organizations, it is probably of some influence in encouraging pupils to join religious societies. The religious phase of the curriculum, however, does not carry over to any appreciable extent in such activities as reading religious books or periodicals or listening to religious programs on the radio.

ENGLISH

Aims and content in composition.—Composition and literature are taught throughout the four years, but in the first two years emphasis is on composition while in the last two it is on literature. The aims of composition are concerned primarily with correct usage and clear

expression of thought. In the content, emphasis is on the English that pupils will use in everyday life, but the more formal topics, such as forms of discourse and versification, are not ignored. The content is of a nature to relate classroom activities to experiences and interests pupils have in their out-of-school life. Exercises in oral composition are based on topics of common interest, giving opinions, telling anecdotes, and so on.

The composition textbooks, however, do not give much emphasis to such important topics as the use of the library and the use of books. They do not provide exercises in the development of discrimination in, or appreciation for, radio programs, motion pictures, and magazines and newspapers. And neither in composition nor in literature are there directions or activities to test the reading abilities of pupils.

These topics are so important that they should be included in a course of study in English, even though their inclusion will add appreciably to a list of topics so great that the time devoted to most of them must of necessity be short. This is especially true since literature also is part of the work in English. The fact that materials in the second course of the series of composition textbooks parallel those of the first course indicates that the writers of these textbooks do not expect topics to be mastered in the first course.

Aims and content in literature.—In literature, anthologies are used in almost all schools. The aims of the textbooks in literature are to provide vicarious experience, to acquire a knowledge of types of literature, to stimulate enjoyment in reading, to develop standards for future reading, and to acquaint pupils with the best in current and contemporary literature. The content is composed of selections from the various literary types. The literature books do not, however, contain units on newspaper and magazine reading — types of reading from which pupils will get much of their information and part of their education after leaving high school. Nor do they provide units in appreciation of radio programs and motion pictures — forms of recreation and education which pupils both in and out of school use largely for entertainment.

Activities related to English: (1) *Motion pictures.*—Motion pictures or shows rank second among the most common recreational activities of both former pupils and pupils in school. The percentages of

pupils mentioning motion pictures or shows as their favorite amusement are practically independent of socio-economic status, country of birth of father, or intelligence.

The data do not show the types of pictures pupils attend, but probably the movies they go to have the same themes as Charters reported in an investigation in which three-fourths of the pictures shown were related to sex, crime, and love.[1] Textbooks in use in the Catholic high schools do not contain units in motion picture discrimination and appreciation. The fact that young persons' attitudes are sometimes permanently changed by motion pictures[2] argues for the inclusion in English classes of units on appreciation and evaluation of the movies.

(2) *Radio programs.*—Practically all pupils listen to the radio, and there is not much relationship between the type of program and such pupil characteristics as socio-economic status, country of birth of father, and intelligence. Variety programs, stories and drama, and modern music are the three types of programs listened to most often by pupils in school, and variety programs and modern music hold first and second rank for former pupils. Programs featuring discussion of world events, or religious, scientific, and political topics, were not mentioned frequently either by pupils in school or by former pupils. Thus, for both groups the radio is largely a means of entertainment. With increase in age and amount of schooling, however, there is an appreciable increase in the better types of programs that are listened to most often. There is probably not much of educational value, however, derived from the radio, and textbooks do not include materials designed to improve taste and discrimination. As the radio is used so much by pupils and its educational values are so great, topics in evaluating types of programs should be included among the units for appreciating types of literature. Classes in music appreciation might encourage pupils in greater numbers to turn to the symphony concerts and operas so frequently broadcast.

(3) *Reading interests:* (a) *Books.* — Approximately five in ten books read by graduates who went to college, six in ten by graduates who did not go to college, seven in ten by discontinued pupils, and eight in ten by pupils still in school are fiction. In general, the older the group and the more schooling they received, the less the percentage

1 W. W. Charters, *Motion Pictures and Youth: A Summary*, p. 49. New York: Macmillan Co., 1933.
2 *Ibid.*, pp. 20-25.

of fiction read. There is some slight positive relationship between high intelligence and the percentage of books, other than fiction, read. Once pupils are out of school, however, they do not turn to books in so great percentages as pupils still in school. Spaulding reported a similar finding for former pupils of the high schools of New York State.[3]

The quality of reading reported by pupils improves noticeably with their increase in age and the number of years they have attended school. Thus, the percentages of Seniors reading non fiction books are greater than for pupils in the other three years; and the percentages of former pupils reading biography, and books on modern social problems, vocational and educational method, psychology and philosophy, history, and religion are greater than for pupils in school. But much of the reading is purely of a type to provide entertainment. The types of literature which were stressed in the English textbooks are not read by large numbers of pupils once they are away from the influence of the school.

(b) *Magazines.*—Both pupils and former pupils read magazines, and once school days are over, former pupils turn to magazines for most of their reading. Three in ten graduates who went to college, six in ten graduates who did not go to college, and five in ten discontinued pupils either reported that they had not read a book recently or did not answer the question. But approximately one in ten of the first group, one in eight of the second group, and one in five of the third group did not mention a magazine.

The quality of the types of magazines read by both pupils and former pupils improves with their age and the number of years they have attended school. But that both groups, to a large extent, read magazines to while away the time is evident from the large percentages of pupils and of former pupils who read miscellanies and digests. This conclusion, however, holds especially for pupils in school, as almost three-fourths of their first choices of preferred parts of magazines had to do with stories. Only insignificant numbers of pupils mentioned the pulp magazines or other cheap types.

With the great numbers of magazines displayed in street magazine-racks and in windows of drug stores, some guidance in the selection of magazines is advisable. The school library can be a prime factor in this

3 Spaulding, *op. cit.*, pp. 43-44.

guidance by providing the better type magazines for pupils' use. All the school libraries have magazines for reading and reference, but apparently the ones pupils most frequently read, judging from the rank of the various magazines reported, are ones they get elsewhere. Perhaps most can be done by teachers of composition and literature, science, and social studies to aid pupils in going to the right types of magazines for their reading and information. For live teaching in some subjects, reference to current literature is a necessity. But not many of the teachers of the subjects mentioned above send pupils to current sources for reference work. As the textbooks in literature do not give sections on magazine reading, the situation in Catholic high schools in guidance in this matter is probably not any better than Henderson reported for other groups of schools. He found that only 448 pupils out of 2,086 were asked to read certain magazines by their teachers, and 76 per cent of the senior high-school pupils were not given direction for current reading.[4]

(c) *Newspapers.*—The rank of preferences of pupils for parts of newspapers — sports section, comic strips, and front page — indicates again all too clearly that diversion is the chief purpose of pupils in reading newspapers. As the textbooks in English do not treat of guidance in the use of newspapers, and since the teachers depend to a great extent on textbooks, it is apparent that consumer education with regard to the newspaper is another neglected phase of instruction in the Catholic high schools. Such guidance is necessary if pupils are to learn to form their own opinion and judgment of the reliability of the news in the daily press. They must learn not to accept as true everything that appears in print; and this caution is doubly necessary, perhaps, with regard to newspapers, as reports are often colored to suit the views and policies of the owners. Rosten in *The Washington Correspondents* stated that the newspaper reporters themselves in Washington gave as their opinion that American journalism in their field was not always worthy of trust.[5] Harvey and Denton found that 69.1 per cent of the boys in forty-four large public high schools generally believed what

4 Frank D. Henderson, "What Part Does the School Play in the Formation of Reading Habits of Its Pupils?" *School Review*, XXXVIII (January, 1930), 52.

5 John A. Toomey, "Press Propaganda Tinctures the News," *America*, LVIII (December 11, 1937), 225, quoting Rosten, *The Washington Correspondents*.

they read in the newspapers.[6] It is not unlikely that this would hold true in the case of most high-school pupils.

Conclusions.—In the composition textbooks in use in the Catholic high schools of this study, emphasis is on the type of English that pupils will use in everyday life, but the kind they will have use for in college is not neglected. In literature stress is on literary types, but current literature also receives consideration. The textbooks in English do not, however, provide for guidance and discrimination in forms of amusements, such as reading newspapers and magazines, listening to the radio, and attending motion picture shows, that are or can be partly intellectual. These activities are followed by boys in the Catholic high schools largely for entertainment, amusement, and diversion, not for information and intellectual growth. Allowing for entertainment and recreation, the education inherent in many of these activities and the appreciation of the better things in these fields merit attention in the classroom. The school cannot train for everything or teach everything; but reading, attending motion picture shows, and listening to the radio enter so largely into the lives of young people, often providing most of their educational opportunities once they leave school, and fit in so well with such subjects as English, science, and the social studies that teachers should offer guidance in these forms of consumer education. Units devoted to appreciation of the good things in books, magazines, newspapers, motion pictures, and radio programs will probably prove more beneficial to most pupils than the rime scheme of the sonnet or of the Spenserian stanza. These activities, so important in the lives of young people, cannot conscientiously be ignored.

SOCIAL STUDIES

The offering.—The offering in social studies is composed of ancient, medieval, modern, and world history, American history, citizenship, civics, economics, and sociology. The average number of units required in the twenty-one high schools is 2.3, of which one unit is usually in foreign history and the remainder about equally divided between United States history and civics, sociology, and economics. If the 3.1 units required in religion are included under social studies, then more than a third of the recitation time is devoted to subjects social in nature.

6 C. C. Harvey and Cecil F. Denton, "Use of Newspapers in Secondary Schools," *School Review*, XLVI (March, 1938), 198.

Aims and content.—In textbooks in European and world history the usual aims are: the achieving of socio-civic efficiency, the making the world intelligible for pupils, the giving a knowledge of the past to interpret the present, and the acquiring a knowledge of social, economic, and political principles. The content deals largely with political events and the social and economic aspects of history, and there is a distinct effort to make the present intelligible for pupils by means of emphasis on such topics as the rise of democracy, the rise of national states and the spirit of nationalism, the growth of commerce and industry, the developing of social reforms, etc.

In United States history the same effort is made to make the present understandable for pupils. But in both types of history the aim "socio-civic efficiency" is largely left to chance.

In civics, in all except six schools, emphasis is on acquiring a knowledge of government make-up, with little thought of how government works. There is little or no emphasis on civic rights, duties, and responsibilities and the bases of these; on respect for law and institutions; on tolerance and open-mindedness; on the force of public opinion; and on the necessity of honesty and efficiency in public office.

In economics the principles underlying economics are amply treated, but such immediate and personal problems as family budgets and expenditures, municipal finance, school budgets, and consumer education are not stressed or even discussed in some textbooks.

In the sociology books used in the fourteen schools offering sociology, emphasis is on right attitudes, intelligent participation, and possible remedies for the present ills of society.

Civic and social activities.—The participation of former pupils in civic duties was limited largely to voting. As many of them were out of school only a few years, they were not paying taxes on personal property and they were not in a position to aid in conducting civic campaigns, such as community chest drives, chamber of commerce activities, etc. Of those of voting age, approximately eleven in twelve voted in the 1936 presidential election. One in twenty-five of the graduates who went to college held some civic position of trust.

Membership in various organizations and clubs was held by more than seven in ten graduates who went to college, by six in ten graduates

who did not go to college, and by more than five in ten discontinued pupils. About one in eight of all groups combined held some office in the clubs or organizations.

Conclusions.—The subject matter in the social studies is of a nature to aid pupils to gain a knowledge of present conditions, but, for the most part, it does not stress intelligent participation, the duties of citizenship, vocations, rights and obligations, consumer education, pupil attitudes, and certain other desirable characteristics listed above.

The former pupils were an active group with respect to voting and participation in clubs, but they were not so active in civic groups and service clubs of various kinds. The extent to which social studies as single subjects had an influence on these activities is impossible to determine on the basis of the data considered.

FOREIGN LANGUAGES

The offering.—Approximately a fourth of the entire offerings of the Catholic high schools of this study are in foreign language. Four-fifths of the schools require two years of Latin and nearly all Freshmen and Sophomores take it. Only about a third of the Juniors take the third year, and slightly more than a fifth of the Seniors take the fourth year of Latin, elective subjects in both years. In the modern foreign languages the most common practice is to offer two years, and these are usually elective. A fourth of the entire enrolment take the modern foreign languages.

Aims and content.—The foreign language textbooks, both in Latin and in the modern foreign languages, recognize reading ability as the fundamental aim in the study of foreign language. Continuous reading along with the grammar necessary for adequate comprehension is provived in almost all of the textbooks. The stress placed upon the derivation of words and the cultural aspects of the life of the people insures that each year of foreign language has some value in itself. The textbooks in foreign languages are, therefore, written in accord with modern thought on the objectives of the various languages.

Evaluation.—As was stated above, almost all Freshmen and Sophomores are enrolled in Latin. That it is not suitable for some pupils is evident from the fact that more than one in seven pupils failed in first-year Latin. This large failure rate is due in part to the lack of adequate

mental ability on the part of some pupils, as will be brought out more specifically later. It may also be due to lack of interest in the subject, as two in five pupils mentioned that they liked Latin least among their subjects, and more than two in five former pupils who did not go to college stated that Latin was of least value to them in their work. From the points of view of mental ability, interest, and values, Latin is not suitable for large groups of high-school pupils.

One of the reasons pupils take foreign language, or more particularly Latin, is to secure the necessary language credits for college entrance. But, as will be pointed out later, only about one in five Freshmen eventually enters college, and even for pupils who do enter college, the pattern of subjects they followed in high school has little or no relation to achievement in college, according to the findings of most investigators.[7] Until such time, however, as colleges do not demand foreign languages for entrance, high schools from which pupils enter college will have to offer foreign language. But not all pupils should necessarily take it.

The value of two years of Latin or of any foreign language, even for those with more than average mental ability, is open to question. The main or primary objective for each year in high-school Latin is "progressive development of power to read and understand Latin."[8] Judd and Buswell have shown by their investigations of the eye movements in the different types of silent reading "that in no case does a third-year student of the best grade in seven high schools in and

7 Lawrence Bolenbaugh and William Martin Proctor, "Relationship of the Subjects Taken in High School to Success in College," *Journal of Educational Research*, XV (February, 1927), 90.

Harl R. Douglass, *The Relation of High School Preparation and Certain Other Factors to Academic Success at the University of Oregon*, p. 27. University of Oregon Publication, III (September, 1931).

Andrew H. MacPhail, "Freshman Academic Achievement in College of Students Presenting Four Years of Latin and Those Presenting no Latin," *School and Society*, XIX (March 1, 1924), 261-62.

J. A. Yates, *The Type of High School Curriculum Which Gives the Best Preparation for College*, p. 105. Bulletin of the Bureau of School Service, University of Kentucky, II, No. 1, (September, 1929).

See Sorenson for the view that the pattern of high-school subjects has relation to achievement in college.

Herbert Sorenson, "High-School Subjects as Conditioners of College Success: Implications and Theories Concerning Mental Factors and Faculties," *Journal of Educational Research*, XIX (April, 1929), 240-41.

8 *The Classical Investigation (Part I): General Report*, p. 79.

around Chicago read Latin."[9] Buswell concluded from his study of reading the modern foreign languages "that the middle half of a class either in high school or in college, does not, in two years' time reach the level of final maturity in reading."[10] He goes on to say that "two years of studying Latin produced less mature reading habits than in the case of French and German,"[11] a result which may be due in part to different methods of teaching the modern foreign languages and Latin.

Conclusions.—In view of the large percentage of failures in Latin, the lack of interest in the subject on the part of many pupils, its lack of direct value to former pupils, and the conclusive investigations that show the ultimate objective — ability to read Latin — is not realized by pupils who pursue the study two years, it is inadvisable to require almost all pupils to spend two years on the subject. Those who can profit from the foreign languages should be allowed to take them. But for many pupils, as will be shown more in detail in a later section, satisfactory achievement is not attained.

MATHEMATICS

The offering.—The average number of units offered in mathematics in the twenty-one high schools is 3.5. The subjects offered are elementary and advanced algebra, plane and solid geometry, and trigonometry. General mathematics and college algebra are each offered in one school. Algebra was required in all the schools and geometry in nineteen.

Aims and content.—The general aims of textbooks in algebra are "knowledge and power to apply mathematics" and "thinking in terms of relationships." In geometry the common aims in all textbooks in use are "accuracy and facility in fundamental processes in geometry" and "logical reasoning."

The topics in the textbooks in algebra are the conventional ones, and the subject matter, with the exception of graphs and practical problems, is of a type that provides for the study of more mathematics. The

9 Charles H. Judd and Guy T. Buswell, *Silent Reading: A Study of Various Types*, p. 91. Supplementary Educational Monographs, No. 23. Chicago: Department of Education, University of Chicago, 1922.

10 Guy T. Buswell, *A Laboratory Study of the Reading of Modern Foreign Languages*, p. 94. Publications of the American and Canadian Committees on Modern Languages, Vol. II. New York: Macmillan Co., 1927. Quoted with permission of the American Council on Education.

11 *Ibid.*

books contain little arithmetic and demonstrative geometry. As many pupils withdraw before reaching the Sophomore year, they do not come in contact with space relations, the subject matter of geometry.

Most of the textbooks in geometry in use in the Catholic high schools of this study introduce the pupil gradually to methods of proof, and the inductive method is used in presenting propositions. The theorems are the conventional ones, but the applications are often practical problems. The main body of subject matter is, however, of a college-preparatory type.

In advanced algebra, solid geometry, and trigonometry, the content is purely preparatory for mathematics in college.

Evaluation.—Pupils in school are divided in their attitudes toward algebra and geometry. Almost a third like algebra best and more than a fourth like it least of their subjects. A fifth like geometry best while a third like it least. Almost a third of the former pupils state that mathematics is the subject of most value to them in their work, while few think it of least value to them. But counting pupils of low mental ability and those who lack interest in mathematics, algebra and geometry prove stumbling blocks to a considerable group of pupils in the Catholic high schools. Authors of textbooks in algebra and teachers may be very ingenious in devising means and methods of aiding pupils to take the leap from the particular numbers of arithmetic to the completely abstract quantities in algebra. But if pupils are to master the fundamental processes in algebra, they must grasp the meaning of abstract quantities and the general laws of quantitative combination in the equation. This is necessary whether they study general mathematics or algebra as it is usually taught in Grade IX. As general mathematics, however, devotes more space to arithmetic, practical problems, and to intuitive geometry and less to certain topics and operations necessary for the study of more mathematics than does algebra,[12] the Catholic high schools might do well to offer to certain groups of pupils work that contains "both algebra and geometry."[13]

Conclusions.—After English, mathematics is the subject that the greatest percentages of former pupils stated was of most value to them

12 Edwin S. Lide, *Instruction in Mathematics*, p. 36. National Survey of Secondary Education Monograph No. 23. United States Office of Education Bulletin No. 17, 1932.

13 *The Reorganization of Mathematics in Secondary Education*, Part I, p. 44.

in their work. The content for the most part, however, is of the traditional type that prepares pupils for the study of more mathematics.

SCIENCE

The offering.—Chemistry is offered in nineteen schools, physics in eighteen, biology in ten, general science in nine, physiology in three, and physiography in one. The average number of units offered is 2.8 and the average number of units required is 1.5.

Content and aims.—The general aims mentioned in almost all the textbooks are "understanding the major generalizations of science" and "the development of associated scientific attitudes."

The content of the textbooks in general science and biology, while somewhat traditional from the point of view of the topics presented, is concerned with significant problems in everyday life. The subject matter of physics and chemistry is more formal and of a more college-preparatory type, although at the same time it affords pupils an opportunity to become acquainted with the environment and makes more meaningful objects in that enviroment.

General science and biology are taught in about half the schools. Approximately half the pupils do not have the opportunity of becoming acquainted with the laws of living things. The proportion is greater if those pupils are considered who withdraw from high school before reaching the Sophomore year — the year in which biology is taught. Knowledge and understanding of the natural forces surrounding us and acquaintance with the major generalizations of science are so important in the lives of most individuals that pupils should have some acquaintance with the physical and biological sciences before leaving high school.

Conclusions.—The content of science courses in the Catholic high schools contains much of practical value in everyday life, but that of physics and chemistry is more of a nature to prepare pupils for following these subjects in college. "Understanding the major generalizations of science" is an aim that the content makes directly attainable, but the "development of the scientific attitudes" and especially of specific ones, such as open-mindedness, the habit of weighing evidence, and the habit of delayed response, are largely left to chance, especially in the courses in physics and chemistry.

APPRECIATION SUBJECTS

The average number of units offered in fine arts in all schools is 1.7, practically all of which is group music in bands, orchestras, and glee clubs. Thus music, which is offered in nineteen schools, is for a limited number interested in production. Appreciation of music, or music for consumption, is not offered.

With the exception of one school, which offers a half unit of commercial art, the graphic and plastic arts do not find a place in the educational program of the Catholic high schools of this study. Likewise, art for appreciation is omitted from the offerings.

This lack of appreciation subjects — with the exception of literature — in the program of the Catholic high schools is one of the great deficiencies in the educational offerings. Art is an important part of the social heritage — part of the aesthetic inheritance that pupils have a claim to — and as such, some provision for it should be made in the program of studies. Perhaps it is still more important that pupils learn to appreciate music, so that they may become intelligent listeners to the great variety of music that comes to them over the radio.

VOCATIONAL SUBJECTS

Academic subjects.—The program of studies of the Catholic high schools of this study is nearly nine-tenths academic as distinguished from the more purely vocational subjects. An academic or college preparatory offering is in a sense, however, vocational for those preparing to enter college.[14] The college preparatory curriculums will be considered in a later section.

Commercial offering. — The average number of units offered in commercial subjects is 2.9, approximately a tenth of the entire offering. Typewriting is offered in fifteen schools; shorthand, in nine; bookkeeping, in thirteen; commercial arithmetic, in twelve; commercial law, in ten; commercial geography, in five; business English, in four; and business training, in one. Economics, listed under social studies, is offered in fourteen schools. The offering in commercial subjects is composed of both technical-business and social-business subjects, but the former — which are more directly vocational — predominate.

14 Koos, *The American Secondary School*, p. 159.

Aims and content.—The aims of commercial textbooks in use in the schools of this study stress both the vocational and the social objectives. The content of bookkeeping and commercial arithmetic includes sections on such important topics as family budgets, individual accounts, household problems, and other items affecting the individual directly. Typewriting and shorthand are strictly technical, but the subject matter of commercial law and commercial geography emphasizes the social side of business.

Evaluation.—The technical-business subjects offered are designed as terminal courses — to prepare pupils for positions in the business world — but they fall far short of meeting the demands of present office practices. The commercial offering is deficient also in that schools do not, in general, offer business administration, salesmanship, business training, etc., courses necessary for understanding business and more or less essential in general education, while at the same time of use to the considerable group of graduates and discontinued pupils who find their way into commercial or sales positions.

The commercial offering will be considered more fully in a later section on the commercial curriculum.

Industrial arts.—Specialized industrial-arts courses were offered in only one of the Catholic high schools of this study in 1935-36, and another introduced an extensive program in 1936-37. Eight schools offered mechanical drawing. Very probably there will not be any decided move in Catholic high schools to offer industrial-arts curriculums, as Catholic thought leans toward general or liberal education in secondary schools rather than to specialized vocational education, especially of the industrial type.[15] Besides, the cost of industrial-arts programs is almost prohibitive for schools largely dependent on tuition for support. Moreover, the public schools are open to pupils who wish to take specific vocational courses, and in one of the Catholic high schools pupils were released for several periods a week to take industrial-arts work in the nearby public school.

Vocational education is considered essential for public secondary schools, the Committee on the Orientation of Secondary Education, Department of Secondary-School Principals, going so far as to state

15 Thomas Edward Shields, *Philosophy of Education,* p. 244. Washington: Catholic Education Press, 1921.

that "no program of secondary education should be regarded as acceptable unless it makes some provision for specialized vocational education and for the vocational aspects of general education. . . ."[16] The Committee defines vocational education as including "all activities directed for the specific purpose of preparing individuals for successful participation in different fields of service."[17] The preparation is of a type that should enable pupils to enter directly into various occupations.

Exclusively specialized vocational training, however, is usually not advocated. Rather, the broader aspects of vocational education are emphasized, at least to the end of Grade XII. In *Trends in Secondary Education,* the statement is made that

> The mission of vocational education as conceived by President Wilson's Commission on National Aid to Vocational Educational is not only to provide the individual with definite training in the technique of the various occupations so that he can take his place in society as a producer, but to prepare him for his place as a citizen. To this end, therefore, the well-organized vocational school or class provides training in techniques and in related fields—science, mathematics, and similar subjects — as well as in such subjects as history, geography, English, literature, economics, and psychology.[18]

Harl R. Douglass voices much the same point of view in his report to the American Youth Commission of the American Council on Education. He says:

> The school must provide effective training for vocational life. This does not mean training for specific jobs. These are so numerous and the techniques are so frequently outmoded as to make any program of school education for them impractical. Moreover, in the majority of occupations these special techniques may be learned on the job in a few weeks. The vocational training provided in schools must, in spite of much superficial popular opinion, be general and basic with a view to *broad application* and to providing education of a sort not easy to acquire on the job.[19]

16 Thomas H. Briggs (chairman), *Issues of Secondary Education,* p. 210. Bulletin of the Department of Secondary-School Principals of the National Educational Association, Vol. XX, No. 59. Washington, D. C.: Department of Secondary-School Principals, 1936.

17 *Ibid.,* p. 186.

18 *Trends in Secondary Education, 1934-36,* pp. 24-25. United States Office of Education Bulletin, 1937, No. 2. Biennial Survey, Advanced Pages, Vol. I, Chapter 2. Washington: Government Printing Office.

19 Harl R. Douglass, *Secondary Education for Youth in Modern America,* pp. 93-94. A Report to the American Youth Commission of the American Council on Education. Washington: American Council on Education, 1937.

The Advisory Committee on Education also recommended the same type of training:

> For adequate occupational preparation, many young people need special vocational training, but consideration should also be given to the far greater importance of general training for useful employment. Underlying each particular specialized trade or calling must be the basic skills and habits—accurate arithmetic, careful use of language, and responsibility and conscientious work.[20]

A course in practical arts, however, to acquaint boys with industrial processes, to teach them the manipulation of tools, and to acquire skill in making ordinary repairs around the home is not narrow vocational work.[21] As the Catholic high schools for boys are usually located in the larger cities, where working or tinkering with tools around the home is limited, a course in unspecialized practical arts is so much the more desirable.

The omission of practical-arts work from the program of the Catholic high schools deprives a considerable number of graduates and discontinued pupils who enter industrial occupations from receiving preliminary training for their work, as more than a fourth of the graduates who did not go to college and almost a third of the discontinued pupils were engaged in skilled and semi-skilled trades. The college-preparatory training which they received did not prepare them for the type of work they were doing.

Other reasons for offering practical arts are: (1) Pupils wish subjects that prepare directly for work, more than a sixth expressing a desire for industrial-arts courses and a considerable group, for technical courses; (2) more than a fifth expect to enter skilled, semi-skilled, and unskilled labor, and probably a greater fraction will actually enter such work; (3) approximately a fifth of the discontinued pupils and the graduates who did not go to college wish they could have taken industrial-arts subjects; (4) a sixth of the discontinued pupils withdrew because the training for their chosen occupation — industrial work, for the most part — was not available. In many cases, however, the techniques necessary in this kind of work and in the semi-skilled labor in which many former pupils are engaged are best learned on the job.

20 The Advisory Committee on Education, *Report of the Committee*, pp. 14-15. Washington: Government Printing Office, 1938.

21 Franklin R. Bobbitt, *How to Make a Curriculum*, pp. 177-208. Boston: Houghton Mifflin Co., 1924.

Morrison, *op. cit.*, pp. 401-15.

PHYSICAL EDUCATION AND HEALTH INSTRUCTION

The physical education offered in sixteen schools consists almost entirely of games and free play, which is a common practice in public schools[22] and in conformity with modern views on physical education.[23]

Health education is offered in thirteen schools, either as a subject in itself or in connection with biology. General science is offered in six schools not offering biology or health. As the textbooks in general science contain units on the human body and health, some health instruction is provided in nineteen schools. However, in most textbooks the structure of the body is emphasized more than its care and protection, and, therefore, much of the instruction in health is probably incidental. As health instruction is a school responsibility and of vital importance to each individual and to society generally, in the Catholic high schools more of the instruction regarding the human body should be directly concerned with its care and with the preservation of health.

Recreational activities.—Three in five of the chief recreational activities of pupils in the twenty-one schools are athletic in nature, and more than two in five are team or group games. About a fourth of the discontinued pupils, a fifth of the graduates who did not go to college, and a tenth of the graduates who entered college engaged in team games. On the other hand, approximately a third of the recreational activities of graduates are individual and dual athletic events. Therefore, as participation in group games decreases as age increases, participation in other types of exercise increases. While it is important that boys participate in the athletic activities which they will follow in later years for the sake of needed exercise and relaxation, they seem as they grow older to take naturally to less strenuous forms of exercise without having had more than incidental participation in such recreations during their high-school years.

Sedentary activities — reading, listening to the radio, and attending motion picture shows — have been discussed earlier in this chapter.

Outdoor activities are mentioned by only one in twenty pupils in school, but about one in ten former pupils find their chief recreation in

22 Leonard V. Koos and Staff, *Summary*, p. 230. National Survey of Secondary Education Monograph No. 1. United States Office of Education Bulletin No. 17, 1932.

23 Aubrey A. Douglass, *Modern Secondary Education*, p. 429. Boston: Houghton Mifflin Co., 1938.

pursuing them. Crafts or handiwork are not listed frequently among the chief recreations and amusements of pupils in school, and they are even less appealing to former pupils. Artistic expression activities also are not mentioned by many pupils or former pupils. Extracurricular groups taking part in these forms of hobbies might encourage pupils to engage with more frequency in these desirable forms of recreations.

The data, however, show only the chief recreations and amusements of pupils and former pupils and do not warrant the conclusion that pupils engage almost exclusively in physical activities to the neglect of other types of recreations.

FAILURE IN CERTAIN ACADEMIC SUBJECTS

The reasons for failure are many. On the part of the school, there may be a poor system of grading and promotion, inadequate equipment and teaching facilities, lack of pupil-teacher adjustment, or poor teaching and supervision. On the part of the pupil there may be bad health, low intelligence, or lack of aptitude for certain subjects. Or there may be a lack of effort and persistence, lack of interest in or positive dislike for a subject, failure to see the need of a subject, too much absence, inherent learning difficulties for particular kinds of subject matter, or lack of challenge to the pupil. The school may be partly responsible for many of these apparent deficiencies in pupils. Probably a vital cause of failure is the fact that often the interests that non-performers have are not satisfied in school, the subjects they are required to take having no interest for them.[24]

It is impossible to determine on the basis of the data presented to what extent many of the foregoing reasons for failure entered into the lack of success of certain pupils in the Catholic high schools of this study. Certain factors or reasons are apparent, however, in data given in earlier sections. The lack of interest of large groups of pupils in certain subjects has been mentioned in previous pages. Judged by the number of units pupils carry in foreign language and mathematics, this lack of interest is independent of socio-economic status and country of birth of fathers of pupils, but not of intelligence. Pupils with intelligence quotients in the lower two quarters do not elect foreign languages and mathematics in as great percentages as do pupils with intelligence

24 Bruce White, "The Causes of Non-Performance Among High School Students," *Educational Administration and Supervision*, XXI (February, 1935), 135.

quotients in the highest quarter. The desires of pupils for subjects vocational in nature suggest, in a negative way, the failure of pupils to see the need for certain academic subjects. Achievement or lack of achievement as measured by teachers' marks is largely independent of socio-economic status and country of birth of fathers, but it has pronounced relationship to intelligence. One in twelve pupils with intelligence quotients in the lowest quarter earned an average mark below the passing mark of 70, and two in five earned average marks no higher than D, or from 70 to 77.

The relation between intelligence and achievement is so important in the performance of school work that further consideration is given in the following paragraphs to intelligence and achievement in certain subjects in which a great amount of failure occurred.

Algebra.—In the twenty-one Catholic high schools the pupils were required to take algebra, and more than one in eight failed in it. Of the 673 Freshmen who both answered the questionnaire and took the intelligence test, eighty-two failed in algebra. Of the 673 Freshmen, 301 had intelligence quotients below 105, and sixty-six of the eighty-two who failed had intelligence quotients below 105. In other words, of the pupils with intelligence quotients below 105, approximately one in five failed in algebra.

Whether or not pupils with intelligence quotients below 105 have mastered algebra is a problem that the evidence of this study does not solve. Thorndike, while allowing that interest, effort, or special mathematical ability may compensate to some extent for lack of mental ability, concluded that, in general, one whose intelligence quotient is below 110 on the *Stanford Revision of the Binet Scale* will be unable to understand the generalizations, symbolisms, and proofs of algebra.[25] He goes on to say that the pupil may pass the course but that he will not have learned algebra.[26] Jackson inferred that "with but few exceptions all boys with an I.Q. of 110 or more who have failed in algebra have done so on account of lack of application and not from any lack of ability.[27] For boys with an intelligence quotient of 100 to 109 on the *Otis Self-Administering Test* there is a fifty-fifty chance of mastering

25 Edward L. Thorndike and others, *Psychology of Algebra*, pp. 36-37. New York: Macmillan Co., 1925.

26 *Ibid.*

27 Nelson A. Jackson, "Learning in First Year Algebra," *School Science and Mathematics*, XXXI (November, 1931), 981.

algebra.[28] Proctor presented evidence to show that 100 per cent of the pupils with an intelligence quotient of 120 or more passed algebra, but that 40 per cent of those with intelligence quotients below 100 either failed or were conditioned in algebra.[29]

If these conclusions are correct, then in the present study about two-fifths (259 or 36.3 per cent) of all the Freshmen who took the intelligence test can master algebra; approximately another two-fifths (265 or 37.3 per cent) have an even chance of passing the subject; and a little more than a fourth will probably fail. These proportions may be applied to the entire group of Freshmen in this study.

Thirteen per cent of the Freshmen of the twenty-one schools actually failed in algebra. It may be concluded, therefore, that a number of Freshmen — about 12 per cent — either worked beyond their capacity, or the teachers were too lenient in marking, or the pupils had special ability or interest in the subject. From the standpoint of intelligence alone, on the basis of Thorndike's conclusion regarding the mastery of algebra, about 50 per cent of the pupils in the twenty-one Catholic high schools should not be taking algebra. On the basis of evidence given in the present study, about one in seven pupils should not be required to take algebra. For one in seven pupils, therefore, the curriculum, in part, is not suitable.

Geometry.—Plane geometry was a required subject in nineteen schools and almost all Sophomores in the twenty-one schools were taking it. About one pupil in eight failed in the subject.

Of 580 Sophomores who both answered the questionnaire and took the intelligence test, 554 were taking geometry and sixty-seven failed in it. Of the 554 taking the subject, 243 had intelligence quotients below 105, and of these, fifty-four, or one in five, failed in geometry. Therefore, a pupil's having an intelligence quotient below 105 does not warrant the conclusion that he is likely to fail on the basis of teachers' marks. In four cases out of five he is likely to pass.

This conclusion is at variance with that of Hummer who inferred from analyzing the scores of Grade X geometry pupils — taught by three different teachers — on the *Otis Group Intelligence Scale, Ad-*

28 *Ibid.*, pp. 981-82.

29 Proctor, *The Use of Psychological Tests in the Educational and Vocational Guidance of High-School Pupils*, p. 35.

vanced Examination, Form A, and the *Columbia Research Bureau Plane Geometry Test, Form B* that failure in geometry is likely to occur if the intelligence quotient is between 100 and 110 or below.[30] Courter reported that pupils with average mathematical ability and average general intelligence will not be successful in plane geometry if their strength of purpose is low.[31]

Latin.—Seventeen schools required pupils to take first-year Latin, but almost all Freshmen carried the subject. Fifteen in a hundred failed in it. The lack of achievement is not pronouncedly related to socio-economic status and bears practically no relation to country of birth of fathers. Intelligence, however, is related to achievement.

Of 280 boys taking first-year Latin and having intelligence quotients below 105, 82, or 29.3 per cent, failed. However, about four in five of all who failed have intelligence quotients below 105. Thus, those who fail are largely from the group having intelligence quotients below 105.

The level of intelligence necessary for pupils to pass in first-year Latin in the high schools of this study is not so high as some investigators found for modern foreign languages. Jordan in a study correlating the scores on Wilkin's *Prognosis Test in Modern Languages* with teachers' marks concluded that 60 per cent of the pupils with an intelligence quotient below 100 on the *Terman Group Test of Mental Ability* can be expected to do failing work in modern foreign languages.[32] Kaulfers in an investigation of 1,007 pupils enrolled in Spanish courses in eighteen junior and senior high schools concluded that intelligence has significant influence on achievement in Spanish as measured by teachers' marks.[33] He found that an intelligence quotient of 105 is necessary for success in high-school Spanish and that pupils with intelligence quotients below that are bad risks.[34]

30 Vivian L. Hummer, "A Comparison of I.Q. and Achievement in Plane Geometry," *School Science and Mathematics,* XXXVI (May, 1936), 501.

31 Claude V. Courter, "A Study of Factors Which Condition Success in Plane Geometry," p. 84. Unpublished Master's thesis, Department of Education, University of Chicago, 1925.

32 J. N. Jordan, "Prognosis in Foreign Language in Secondary Schools," *School Review,* XXXIII (September, 1925), 545.

33 Walter V. Kaulfers, "Effect of the IQ on the Grades of One Thousand Students of Foreign Languages," *School and Society,* XXX (August 3, 1929), 164.

34 *Ibid.,* p. 163.

If an intelligence quotient of 105 is necessary for a pupil to be successful in Spanish, it might be justifiable to infer that at least that level of intelligence is necessary for a pupil to carry Latin successfully. The data in the present study, however, do not justify that conclusion. The inference warranted by the data are that approximately 70 per cent of the pupils with intelligence quotients below 105 can pass Latin, and that the curriculum in part is not suitable for more than one in seven pupils who failed in Latin. But it should be borne in mind that this second conclusion applies to the average school. In some schools practically all pupils passed first-year Latin; in others, more than a third failed.

ELIMINATION

The holding power of the Catholic high schools of this study is approximately the same as for public high schools in the country generally. In the twenty-one schools almost half the discontinued pupils withdrew before the Sophomore year and more than three-fourths before the Junior year. Intelligence is not a decisive factor in causing withdrawal in these schools, as less than one point separates the median intelligence quotients of Freshmen and Seniors. Country of birth of fathers is a factor in elimination only for a small group of boys whose fathers were born in South and Southeast Europe. Socio-economic status and achievement have more influence on withdrawal than intelligence and place of nativity of fathers.

One in two pupils in the Freshman year and slightly more than two in five Seniors are from the lower economic classifications. Socio-economic status is thus an accompaniment of withdrawal. Moreover, pupils in withdrawing from school gave most frequently as reasons for discontinuing that they could not pay the tuition or that they had to go to work. A fifth of the discontinued pupils gave as the reason for their withdrawal that they had to help support their families or themselves, and a tenth stated that the expenses were too great. Thus, the economic standing of the family had a definite relation to the withdrawal of these pupils.

Lack of satisfactory achievement is also a cause of elimination, although the economic factor seems more potent, as approximately half those who withdrew in 1935-36 did not fail in any subject. Failure was the third most frequent reason given for dropping out of school, one in twelve discontinued pupils giving failure as the reason for quitting

school. Finally, over a period of years approximately a fourth of the discontinued pupils from six high schools had average marks below passing.

Lack of interest in school is a frequent reason given for withdrawal, one in seven discontinued pupils checking that as the cause of his dropping out. Somewhat related to lack of interest is "training for chosen occupation not available," checked by one in six drop-outs. A reflection of this lack of interest is indicated by the fact that two in five discontinued pupils stated that Latin was of least value to them in their work, and one in five mentioned history.

On the basis of the evidence, socio-economic status, lack of satisfactory achievement, and lack of interest in school work are the most important reasons for elimination from school. It cannot be concluded, however, that most pupils from the lower socio-economic levels will drop out of school, as two in five Seniors are from the lower economic classifications. Nor can it be concluded that pupils who fail in classes will drop out, as many continue in school. Moreover, it cannot be inferred that a more varied offering would keep pupils in school if they must help support the family or are unable to meet tuition rates. Counts came to a similar conclusion regarding the holding value of a varied offering for pupils in Bridgeport, Connecticut.[35]

The school has the obligation of offering effective guidance to pupils and to see to it that each subject and each year of schooling is of value to pupils. Those who are low in achievement, or who will probably have to help support their families, or who lack interest in school work must be considered as probable drop-outs. The great majority of discontinued pupils of this study entered manual work or minor clerical or commercial work, jobs for which their academic training did not prepare them. Business training, business arithmetic, business administration, practical arts, etc. would have been more consistent with the type of work they were doing than such subjects as Latin, algebra, and ancient history. It is the duty of the school to find the probable needs of its pupils and to make provision for such needs in so far as this can be done.

35 Counts, *The Selective Character of American Secondary Education*, p. 112.

THE CURRICULUMS

As specific curriculums are designed to meet the needs of various groups of pupils, the curriculums offered in the Catholic high schools will be examined in the light of the educational and vocational plans of pupils (more especially of Juniors and Seniors), their intelligence and achievement, the socio-economic status and country of birth of their fathers, and also in the light of the status of former pupils of six of the schools.

Eleven of the twenty-one high schools offer the constants-with-variables type of curriculum organization, eight have the combination type, and two employ the pure multiple-curriculum type. The constants-with-variables type is not readily divisible into specific curriculums, using the term in the narrower sense; but from a consideration of the required and elective subjects it is possible to judge what specific curriculums might be included under the constants-with-variables type. The attempt is here made to separate the program of studies of the eleven schools into curriculums so that the discussion of the offerings will not become too involved. All the twenty-one schools may be said to offer the academic curriculum; at least sixteen — and more likely, twenty — may be considered to offer the scientific curriculum; six may be said to offer the general curriculum, although only three employ the name; and twelve offer the commercial. Seven other schools offer from a half to two units in commercial subjects.

The academic and scientific curriculums are purely college preparatory in that the required subjects include those units that colleges usually demand for admission to one or another of their departments or divisions.

Of the six schools that may be said to offer the general curriculum, five require pupils following it to take subjects necessary for admission to college — that is, three or four units in English; two in foreign language, usually Latin; one in algebra and one in geometry; one in a laboratory science; and two or more in social studies. Three or four years of religion are also required. Only one school may be said to have a general curriculum with few prescriptions and a large number of electives. On the other hand, all the constants-with-variables type of curriculum organization may be considered to include the general curriculum in the same sense that the term is used by the schools employing the

term "general curriculum" to designate one of their separate curriculums.

Of the twelve schools offering the commercial curriculum, only three do not require pupils to take subjects necessary to fulfill the usual minimum admission requirements to college. The required subjects in the nine remaining schools are the same as those given in the preceding paragraph.

Hence, with few exceptions, all the curriculums offered are college preparatory in the sense that the subjects required are those necessary for admission to college. In the discussions that follow, however, only the academic and scientific curriculums will be considered under college preparatory curriculums.

Pupils from all socio-economic classifications, from all quarters of intelligence, from all achievement levels, with occupational plans in all groups of callings, and with various educational plans or with none are represented in each curriculum.

COLLEGE PREPARATORY CURRICULUMS: THE ACADEMIC AND SCIENTIFIC CURRICULUMS

Besides taking the usual required subjects mentioned for the general curriculum, pupils in the academic curriculum usually take foreign language, advanced mathematics, and physics or chemistry in the Junior and Senior years. Those following the scientific curriculum are required to take advanced mathematics and physics and chemistry in addition to the other required units.

College attendance and educational plans.—About six in ten pupils in school have expectations of entering college, and six in ten Juniors and Seniors in the academic and scientific curriculums plan to go to college. If the percentage of pupils who had transcripts of their credits sent to colleges in 1936 is representative of the percentages that usually go from these schools, then about 15 or 20 per cent of the pupils in school are doing wishful thinking regarding going to college.

In Table 58[36] data were presented which showed that 40.8 per cent of the graduates of June, 1936, had transcripts of credits sent to colleges and universities. For two of five members of that graduating class a college preparatory curriculum was therefore appropriate.

36 P. 126.

But if a college preparatory curriculum was suitable for some 40 per cent of the Seniors of that year, it probably was not the best curriculum for 40 per cent of the members of the class when they entered as Freshmen. During the year 1935-36 17.8 per cent of the Freshmen, 15.7 per cent of the Sophomores, 10.9 per cent of the Juniors, and 2.6 per cent of the Seniors withdrew from school.[37] If the same withdrawal rate obtained for the Seniors of 1936 from the time they were Freshmen, then 47 per cent of the pupils who entered high school in 1932 were eliminated during the four years. The percentages eliminated in preceding years may have been smaller than in 1935-36 since it is well known that pupils remain in school when work is scarce and drop out in greater numbers when jobs are available. Assuming that 40 per cent of the pupils withdrew, the 1,678 Seniors in 1935-36 were the number that continued in school from approximately 2,797 Freshmen, and the 654 graduates who presumably entered college in 1936 were 23.3 per cent of the number of pupils who entered as Freshmen. Accordingly, a college preparatory curriculum — or college preparatory subjects in the Freshmen and Sophomore years — was appropriate, from the point of view of college entrance, for about a fourth of the particular class in question.

This conclusion applies to schools as a group and not to individual schools. It applies with more force to some schools than to the group, and to others with less force. The range of the percentages of graduates who went to colleges and universities was from 22.6 per cent in one school, in which the commercial curriculum was emphasized, to 68.0 per cent in another school. Three schools, to the writer's knowledge, were attended by pupils principally because the academic curriculum was emphasized in them. But in schools from which only a third or a fourth of the graduates went to college, the policy of requiring college preparatory work of all is equivalent to demanding that the majority of pupils acquire abilities they will never have use for.

Pupils in the academic and scientific curriculums who have low intelligence quotients, who are low in achievement, and whose fathers are in the lower socio-economic levels do not plan to enter college in so large proportions as those in the two upper quarters of intelligence, or those who earn average marks of A or B, or those whose fathers are in the higher socio-economic classifications. These latter groups, in the

37 Table 52, p. 119.

majority of cases, were taking the appropriate academic curriculum, but many of the former groups were enrolled in a program that prepared them for further education of a type that they did not intend to pursue.

College preparatory curriculums and non-college plans.—A third of all pupils definitely state that they will not enter colleges and universities, and about the same proportion of Juniors and Seniors in the academic and scientific curriculums do not plan on going to college. Moreover, in these curriculums more than half of those pupils who do not expect to pursue higher education have intelligence quotients below the median for all Juniors and Seniors, and approximately two-thirds received average marks of C, D, or F. Approximately one in seven pupils in these curriculums intend to follow manual work, for which academic and college preparation is not necessary. About half of the pupils who are in the college preparatory curriculums and whose fathers are in the lower socio-economic classifications do not intend to enter college.

These pupils who do not plan to enter college are in all the schools, even in those offering only college preparatory curriculums. They are being trained for an academic type of work that they will probably never use. They for the most part, as is true for graduates who did not go to college and for discontinued pupils, will enter the commercial and clerical fields or skilled, semi-skilled, or unskilled trades — work for which an academic training, or, at least, college preparatory training, is not necessary. Commercial and practical arts work would be of more direct value for the third of the pupils who do not intend to go to college but are nevertheless taking college preparatory subjects.

College attendance and vocational plans.—Approximately four in ten pupils in the Catholic high schools plan to enter the professions, for which college preparation is a prerequisite. But the fact that only one in ten former pupils have succeeded in taking up professional work shows that the vocational expectations of pupils are beyond what they probably will attain. The necessity for guidance is apparent, not to dissuade pupils from aiming high, but to acquaint them with their own capabilities, the abilities demanded in certain callings, and the possibilities of their realizing their ambitions or hopes.

That pupils do not always realize their vocational ambitions might be assumed. Bell has shown that of 5,143 employed youth, 1,973 wanted to be in the professional-technical fields, but only 388, or less than a

fifth, were actually employed in positions of that type; and 1,280 were in the semi-skilled trades, but only 325 expressed themselves as desiring the kind of work they were doing.[38]

Clark in estimating the numbers of persons who will actually enter the different callings, based on the assumption of an average working life of forty years, a stabilized population, no change in the relative wants of people, and the rise of no new occupations which would seriously disturb the occupational distribution of workers, shows that while choices of occupations are heavy in the professional and commercial fields, those persons who will eventually enter and the number needed are considerably smaller, especially for the professions.[39] At the same time, he shows that the reverse is true for the occupations in the lower economic levels.[40]

Although the argument for college preparatory curriculums on the basis of the occupational choice of pupils of this study has some value, much of it must be discounted. One cannot say that since 40 or 50 per cent of the pupils plan to enter certain occupations demanding preparation in college, the college preparatory curriculums are suitable for these pupils. Taking into consideration the numbers of former pupils who entered the professions and other types of work for which preparation in college was helpful or necessary, it is probable that preparation in colleges and professional schools is necessary for about a fourth of the types of work in which pupils in school will eventually engage. Bell and Proctor found that the vocational plans of 3,301 pupils in six California high schools in 1933-34 were almost identical on the basis of percentages with the plans of pupils in school in 1917-18.[41] If the former pupils in this study had the same high vocational expectations as the pupils in school, only a fourth realized them. It is not unlikely that about the same proportion of pupils in school who plan to enter the professional field will eventually become professional men.

Approximately a seventh of the boys in the academic and scientific curriculums plan to enter the commercial and clerical fields, and half

38 Bell, *op. cit.*, p. 132.

39 Harold F. Clark, "Exploring Occupational Trends," *Occupations*, XIV (May, 1936), 771.

40 *Ibid.*

41 Havrah Bell and William Martin Proctor, "High-School Populations Then and Now—A Sixteen-year Span," *School Review*, XLIV (November, 1936), 691.

of these pupils do not intend to enter college. About two in ten boys in these curriculums expect to take up work classed as "manual," and four in five of these do not intend to go to college. Moreover, about three in five have intelligence quotients below the median for all Juniors and Seniors, and two in three are from the lower socio-economic classifications. College preparatory work does not prepare for their chosen occupations those who do not expect to go to college and who plan to enter the business or manual fields. They could with profit to themselves be guided into other curriculums or subjects that have more relation to their chosen fields of work.

College preparatory curriculums and intelligence and achievement. —Approximately three in five Juniors and Seniors following the academic and scientific curriculums have intelligence quotients above the median for all Juniors and Seniors. High intelligence, therefore, has a bearing on the numbers of pupils following these curriculums. There is also a direct positive relationship between high intelligence and high average marks of pupils in the academic and scientific curriculums, as three in four pupils with intelligence quotients in the fourth quarter earned average marks of A or B. Those pupils who have intelligence quotients in the fourth and third quarters succeed in doing acceptable work in the college preparatory curriculums, but about seven in ten of those who have intelligence quotients in the second and first quarters, while achieving average marks above the failing mark, could very probably do more satisfactory work in curriculums in which some of the subjects are not so difficult as many of those required in the academic and scientific programs.

It can be said conservatively that few if any of the pupils who received average marks of D should take the academic and scientific programs. An average mark of D is, in many cases, an indication that pupils failed in subjects during high school. For those who earned average marks of D and whose intelligence quotients are in the higher two quarters, there may be lack of interest in some of the subject matter of the college preparatory curriculums. In the case of pupils with intelligence quotients in the lower two quarters who received average marks of D, there is, in all probability, the lack of mental equipment to do acceptable work in college preparatory curriculums. This conclusion, however, applies more specifically to certain subjects in these curriculums.

The fact that half the pupils have intelligence quotients of 106.0 or above and that three-fifths of the Juniors and Seniors in the academic and scientific curriculums have intelligence quotients above the median for all Juniors and Seniors is not an argument for having college preparatory curriculums, nor is it an argument for not having them. If pupils capable of carrying the subjects that comprise college preparatory curriculums insist and their parents concur that the kind of education they wish is best secured by carrying these subjects, then, whether guidance be effective or not, the subjects and curriculums ought to be offered. As about six in seven pupils in the academic curriculum and about three in four in the scientific curriculum earned average marks of C or better, it is apparent that most pupils succeed, on the basis of achievement, in these curriculums. The conclusion from the point of view of achievement and intelligence is that college preparatory curriculums should be available to pupils. However, it does not follow that all pupils capable of succeeding in such curriculums should be enrolled in them, nor that all who cannot succeed should be excluded.

Socio-economic status and college preparatory curriculums.—The European tradition concerning the value of the academic subjects still prevails in the minds of many American people,[42] and as long as it persists, schools, and private schools in particular, must to some extent offer the kinds of educational programs that the people wish or demand. This appreciation for the traditional curriculum and the fact that in six schools no other type of curriculum is available account for the tendency of many pupils from all socio-economic levels to take the college preparatory curriculums. Moreover, the fact that tuition is charged in all schools except one probably makes an already selected group still more selected from the socio-economic standpoint. This greater selectivity may result in even greater percentages of parents wishing their children to take the academic and scientific curriculums.

Approximately two in five Juniors and Seniors who take the college preparatory curriculums and whose fathers are in the lower economic brackets do not intend to go to college. Excepting children from professional groups, from a sixth to a fourth of pupils from the higher socio-economic groups do not plan to enter college. For these groups not planning to enter college some other curriculum that prepares more

42 Charles H. Judd, "What is General Education?" *Bulletin of the Department of Secondary-School Principals of the National Educational Association,* Vol. XXI, No. 68, (October, 1937), 9.

directly for general education and for earning a living would be more suitable. Moreover, as many Freshmen and Sophomores, especially from the lower socio-economic classifications, withdrew from school before reaching the Junior or Senior year, the proportions that could profit more by some other kind of offering would be greater.

Ethnic origins and college preparatory curriculums. — Previously cited investigations on the relation between curriculums and country of birth of fathers of pupils presented conflicting evidence on the choice of curriculums and ethnic origins.[43] In the study of Counts, made fifteen years ago when selection was, perhaps, more operative than now, children of foreign-born parents did not enter the general, industrial arts, and commercial curriculums to any great extent.[44] Apparently, a school's having such curriculums did not induce certain groups of pupils to enroll in them. In a more recent study in the National Survey of Secondary Education, the writers of the report concluded that there was some tendency for pupils of foreign-born fathers to enter schools and curriculums of the industrial and commercial types.[45] If this same tendency applies to prospective Catholic school pupils, and it very probably does to some extent, it would indicate that many of these pupils, especially the ones who want industrial-arts work, do not come to Catholic high schools. And as the commercial curriculum is offered in only twelve schools, nine of the schools of this study lose prospective pupils. Probably, as a result, selection is already somewhat effective among the pupils who come, and many of them wish a curriculum academic in nature.

This is the case in one school in which practically all the pupils are Polish. Located in a neighborhood in which a large public high school is making a genuine effort to offer a curriculum based on the needs, interests, and vocational plans of pupils,[46] the Catholic high school has a group of pupils whose parents, at least, want them to follow an academic curriculum. In that particular school there is selection among ethnic groups, and there probably is in other schools also.

43 Pp. 165-66.

44 Counts, *The Selective Character of American Secondary Education*, p. 112.

45 Kefauver, Noll, and Drake, *The Horizontal Organization of Secondary Education*, p. 142.

46 Paul R. Pierce, "Major Steps in Reorganizing a High-School Curriculum," *School Review*, XLIV (November, 1936), 655-66.

The preference of Polish boys for an academic curriculum was noted by Counts, who found that they almost completely neglected the scientific, general, commercial, and industrial-arts curriculums.[47] The same is true in the present study. The other large group of boys whose fathers were foreign born — the Irish — take the academic and commercial curriculum principally.

There is some reason for offering college preparatory curriculums from the point of view of ethnic origins, but it is not a strong one and it does not affect all schools.

Conclusions.—Purely college preparatory curriculums are offered and taken by approximately two-thirds of the Juniors and Seniors in all the schools. As the required subjects in the first two years are, with few exceptions, strictly academic, it may be said that practically all the Freshmen and Sophomores are enrolled in college preparatory curriculums.

Taking at their face value the intelligence, achievement, and educational and vocational plans of all pupils, and more specifically, of Juniors and Seniors in the college preparatory curriculums, it might be argued on the bases of the data presented, that these curriculums are suitable for approximately four in ten pupils from the point of view of vocational plans; for six in ten in view of their educational plans; and for more than eight in ten from the standpoint of achievement.

Such arguments, however, are incidental. The college preparatory curriculums are designed to prepare pupils for entrance to college. A fourth of the Juniors and Seniors in these curriculums and a third of all pupils in school do not intend to go to college, and therefore, they are receiving a type of training which they will not directly use. Moreover, very probably not more than half the Seniors will enter college. As about half the pupils withdraw from school before graduation — and few discontinued pupils eventually go to college — probably not more than a fourth of the Freshmen will pursue higher education. Therefore, probably only a fourth of the pupils will have direct use for the academic training which they received. This conclusion is for all schools in general, but for most of the twenty-one schools the proportion would probably be lower than a fourth.

47 Counts, *The Selective Character of American Secondary Education*, p. 112.

THE COMMERCIAL CURRICULUM

The commercial offering.—Twelve of the twenty-one Catholic high schools offer the commercial curriculum and seven others offer from a half to two units of commercial work. The commercial units in the twelve schools are composed largely of commercial stenography, typewriting, bookkeeping, commercial arithmetic, and commercial law. Economics is offered in fourteen schools; commercial geography, in five; business English, in four; and business training, in one. Most of the commercial subjects offered are the technical-business ones — subjects that are in the nature of terminal courses, designed to enable a pupil to step into clerical work.

The commercial curriculum offered is, in general, a college preparatory one with from three to six units of commercial work included. In three schools commercial pupils are not required to take Latin; and in two, they are not required to carry geometry. With these exceptions, the required subjects are three or four years of religion, three or four units in English, two in foreign language, two in mathematics, two or three in social studies, one or more in science, and three or more in

In the Catholic high schools of this study the commercial curriculum is the only one commonly offered that is specifically vocational in nature. commercial subjects.

The pupils.—More than six in ten of the Juniors and Seniors in the commercial curriculum do not intend to go to college, no matter what their intelligence quotients, their average marks, or their socio-economic status. More than six in ten have intelligence quotients in the lower two quarters, and more than six in ten earned average marks of C or lower, and most of these do not intend to go to college. Moreover, six in ten are from the lower socio-economic classifications, and four-fifths of these do not plan on entering college. Only one in ten of all pupils enrolled in the commercial curriculum plans to enter the professions, and the others expect to follow work for which college preparation, in most instances, is not necessary. Three in ten intend to do work manual in nature. Some of the subjects required for entrance into college should not, therefore, be demanded of commercial pupils. Nineteen of the schools have their curriculums organized either as the constants-with-variables type or the combination type. Those pupils who plan to enter college, could, therefore, elect subjects necessary for college en-

trance were they not already required. Such pupils as do not contemplate going to college would be free to take additional units in commercial work or in other subjects.

Probably all schools of this study should offer the commercial curriculum. A third of the former pupils and more than two-fifths of those who did not go to college entered the commercial and clerical fields, and a fifth of all pupils in school planned to enter these types of work. More than a tenth of boys following the academic, scientific, and general curriculums expected to follow commercial and clerical pursuits, and it is probable that they would have prepared for that work were the commercial curriculum offered in their schools. Moreover, commercial subjects were the ones desired by large groups of former pupils and by pupils in schools not offering commercial subjects.

Reasons were given in a preceding paragraph for not requiring pupils in the commercial curriculum to take college peparatory subjects, thereby enabling them to take more commercial work. But to make available to pupils a great amount of work commercial in nature, the offering would have to be expanded. And it should be expanded in most schools to include more social-business subjects and also technical-business subjects in addition to those that prepare for minor clerical duties. The commercial curriculums in the larger schools, at least, could very well include subjects dealing with retailing, selling, and other store-service occupations. The Office of Education reports that the high enrolment in the technical-business subjects "is out of all proportion to the demand for workers in these and other clerical lines."[48] The same report states that out of approximately 6,000,000 youth enrolled in high schools, only about 10,000 are receiving vocational preparation for retailing, selling, and store-service occupations, the third largest field of employment.[49]

Moreover, many discontinued pupils find their way into selling jobs in drug stores and grocery stores, and this is especially true of Freshmen and Sophomores, who leave school in large numbers. Special training is not essential in these minor selling jobs, but probably the particular type of pupils who leave school after a year or two would profit more by the direct values of some subjects acquainting them with busi-

48 *Trends in Secondary Education*, p. 19.

49 *Ibid.*

ness than they do from a year of algebra, ancient history, or Latin — subjects that lack immediate values for pupils leaving school.

The commercial curriculum in the schools offering it seems to be a haven for some pupils who probably are unable to carry the purely college preparatory curriculums. Six in ten Juniors and Seniors in the commercial curriculum, as was stated above, have intelligence quotients below the median of all Juniors and Seniors, and the same proportion have low achievement marks. This is not a valid reason for offering the commercial curriculum, but it is an argument for offering some type of curriculum that will adequately provide for those in the lower intellectual and achievement intervals and that will steer such pupils from business callings in which many of them, because of the lack of proper mental ability, may be maladjusted.

Conclusions. — Most of the commercial subjects offered are the technical-business subjects, in their nature terminal courses to enable a pupil to step into clerical work. But the Catholic high schools demand college entrance units in addition, even though more than half the pupils in the commercial curriculum do not intend to go to college. The commercial offering does provide training for those who enter clerical positions, but not adequate training for the group who engage in the store-service occupations. The commercial curriculum both in subjects required of pupils and in subjects not offered has serious shortcomings.

From the point of view of pupils who intend to enter commercial or clerical pursuits, the commercial curriculum does fulfill a need in the Catholic high schools. About two in ten Juniors and Seniors enter the commercial curriculum. Approximately five in ten of those in this curriculum plan to enter work of a commercial or clerical nature, and more than one in ten plan to do work of an unspecified kind. Assuming this unspecified work to be commercial or clerical employment, it may be said that approximately three-fifths of the pupils in this curriculum are planning to enter work for which they are preparing. This proportion is somewhat lower than that represented by the number of graduates not going to college who had commercial training in Catholic high schools and who entered commercial and clerical pursuits. If it may be assumed that 20 per cent of the pupils in school are taking commercial work or will be when they are Juniors or Seniors and that 60 per cent of these will enter the commercial and clerical fields, then the commercial curriculum — admitting its deficiencies — provides for the vocational needs

of three-fifths of the 20 per cent of the pupils who follow that curriculum, or for about 12 per cent of the pupils in school.

THE GENERAL CURRICULUM

The term "general curriculum" is frequently used but rarely defined. An early definition describes it as "a curriculum designed primarily to meet the general and later professional needs of a group of pupils who choose definitely to postpone their special preparation for a particular vocation."[50] Spaulding characterizes the general curriculum employed in the secondary schools of New York State as one which "includes chiefly academic courses but allows freer choice of nonacademic work than is possible in the college-preparatory curriculum."[51] Both these definitions imply that the general curriculum is simply less academic than the purely college preparatory curriculum.

In practice, however, the term often connotes a curriculum having few prescriptions and a generous number of electives. In a group of schools reported in the National Survey of Secondary Education as having the general curriculum, the percentages of schools requiring units in various subjects in 1930-31 are: in English, 100.0; in history, usually American, 92.7; in other social studies, 84.0; in algebra, 52.2; in geometry, 26.1; in general science, 40.6; and in biology, 26.1.[52] Foreign languages are not required.[53] The number of required units in the various subjects are not given, but the constants are largely in the fields of English and social studies. Bryson and Hutson found that schools in Pennsylvania commonly required four units of English and none in foreign language.[54] With regard to other subjects there was variation, but more than half the schools required one unit in mathematics, two in history, two in science, and one and a half or more units in other social studies.[55]

50 Charles H. Johnston, Jesse H. Newlon, and Frank G. Pickell, *Junior-Senior High School Administration*, p. 77. New York: Charles Scribner's Sons, 1922.

51 Francis T. Spaulding, *High School and Life*, p. 84. The Regents' Inquiry into the Character and Cost of Public Education in the State of New York. Copyright 1938 by McGraw-Hill Book Co., Inc.

52 Loomis, Lide, and Johnson, *op. cit.*, pp. 149-50.

53 *Ibid.*, p. 150.

54 William M. Bryson and Percival W. Hutson, "The General Curriculum," *School Review*, XLIII (January, 1935), 20.

55 *Ibid.*

The reasons most frequently given by principals for advising pupils to enter the general curriculum were: (1) lack of capacity for or interest in some of the required subjects of the more specialized curriculums; (2) lack of certainty with regard to educational and vocational plans; (3) the general curriculum provides best for the realization of the definite plans pupils have.[56]

The most frequent reasons the pupils gave for entering or transferring to the general curriculum were identical with those the principals gave for assigning them to it.[57]

Three schools of this study offer the general curriculum, and one offers an "English curriculum," which in this report is grouped with the general curriculum. In effect, the general curriculum in these four schools is one of minimum college entrance requirements, as the subjects required are, as a rule, three or four years of religion, four units in English, one unit in algebra, one unit in geometry, two units in foreign language (Latin), two or more units in social studies, one unit in science, and approximately a half unit in physical education. The eleven schools employing the constants-with-variables type of curriculum organization may be said to have the general curriculum in the sense in which the term is used by the Catholic high schools offering the general curriculum.

As the general curriculum in the Catholic high schools of this study is in reality college preparatory, much of the preceding discussion of the college preparatory curriculums in relation to certain pupil characteristics may be appropriately applied to the general curriculum. The arguments, however, for not requiring certain groups of pupils to take such subjects as mathematics and foreign language apply with even greater force to pupils in the general curriculum than to those in the academic and scientific curriculums, as two-thirds of the boys in the general curriculum have intelligence quotients below the median for all Juniors and Seniors, and almost two-fifths have intelligence quotients in the lowest quarter; more than two-fifths earned average marks of D (70-77); one-fifth plan to enter skilled or semi-skilled labor; a third state definitely that they will not go to college.

A general curriculum with few prescriptions and many electives

56 *Ibid.*, p. 26.

57 Harry E. Brumbaugh and Percival W. Hutson, "How High-School Pupils Use the General Curriculum," *School Review*, XLIII (February, 1935), 121.

could be used to advantage in practically all the high schools of this study. Other reasons for this conclusion in addition to those implied above are based on the vocational and educational plans of some pupils, or their lack of such plans, on their intelligence and achievement, and on the desirability of their receiving a general education.

Vocational plans.—Approximately one in seven pupils in school and about one in five Juniors and Seniors in the different curriculums did not mention any specific vocational plan. For them a general curriculum would provide or make available a general education and at the same time allow for election in the various subject-fields as a means of exploring in the line of their interests.

A fifth of all pupils state that they expect to take up work on the lower economic levels, and approximately the same percentage of Juniors and Seniors plan to enter callings that are of a skilled, semi-skilled, or an unskilled nature. One hundred and sixty-one of the 185 who plan to enter these types of work do not intend to enter college. For them, therefore, college preparatory work is not necessary. But a general education is, and they could very well spend their time on certain subjects that have direct and basic vocational values, such as the general curriculum can provide in greater numbers than can the more narrow academic, scientific, and commercial curriculums.

Educational plans.—A third of all pupils state definitely that they are not going to college, and a tenth are undecided about going to college or give no answer concerning their educational plans. Many of the Juniors and Seniors of this group with no educational plans are in the commercial curriculum, as only slightly more than a fourth of the Juniors and Seniors in the commercial curriculum plan to go to college. Likewise about three in ten in the academic and scientific curriculums and about four in ten in the general curriculum do not plan to go to college. For all these pupils not planning to go to college the general curriculum would make available many subjects with both immediate and exploratory values and in line with the possible interests of pupils.

In this connection it may be said that a large number of elective units does not necessarily mean that a "cafeteria" system of credits would result. A provision for a certain number of majors and minors would insure sequence in several subject-fields.

Intelligence and achievement.—Fewer than one in ten pupils following the general curriculum have intelligence quotients in the highest

quarter, but almost two in five have intelligence quotients in the lowest quarter. From the point of view of achievement, not two pupils in a hundred in the general curriculum earned average marks of A, but forty-four in a hundred earned average marks of D or lower. It is apparent, therefore, that the general curriculum attracts — from all socio-economic classifications — pupils whose mental ability is below the median and whose achievement is low.

A fourth of the pupils in the twenty-one schools have intelligence quotients of 99 or below, and a fifth of the Juniors and Seniors in the academic curriculum, a seventh of those in the scientific curriculum, and more than a third of those in the commercial curriculum are in the lowest quarter of intelligence. Many of these, as has been pointed out earlier, cannot master such subjects as mathematics and foreign language. The subject matter together with its organization must be different from that which more capable pupils might find challenging. As one of the prime reasons for a general curriculum is to provide work commensurate with the abilities of certain groups of pupils who are in the Catholic high schools, the addition of a general curriculum, where it is now offered, would provide a type of work that is lacking at the present time.

Commercial offerings and pupils of low intelligence.—More than three in five pupils in the commercial curriculum have intelligence quotients below the median for all Juniors and Seniors and more than three in five earned average marks of C or lower. The presence of large numbers of pupils in the commercial curriculum with low intelligence quotients and low achievement marks is difficult to explain. These pupils are from all socio-economic levels; they plan to enter all the different fields of work; and a considerable number plan to enter college. Some undoubtedly are in the commercial curriculum because they think the subjects are somewhat easier than those required in other curriculums, or because they could not succeed in other courses.[58] A general curriculum would serve a good purpose if it provided an outlet for a group of pupils who have not the intelligence needed in commercial pursuits and who may not have intentions to enter commercial or clerical occupations.

The general curriculum and general education.—A general curriculum with few required subjects and many electives would provide a general education. Religion, English composition and literature, the

58 "Subjectmatter Round Tables in High-School Instruction and New Curriculum Materials," Mary Stuart, "In Business Education," *Proceedings of the National Education Association,* Vol. LXXIV, 1936, p. 350.

social studies, general mathematics, general science, elementary business training, music, art, physical education, and the practical arts might well constitute the backbone of this curriculum. Other subjects, such as the foreign languages, commercial studies, mathematics, etc., should also be open to such pupils as wish to take them.

Conclusions.—The general curriculum, offered in approximately a fifth of the schools, is one of minimum college entrance requirements. It differs from the academic and scientific curriculums only in that fewer units in foreign languages, mathematics, and science are required and more electives permitted. Since only half the Juniors and Seniors enrolled in it plan to go to college; since many have no vocational plans or intend to follow types of work that do not require academic training; since many are low in achievement and have intelligence quotients below the median for all Juniors and Seniors — a general curriculum with fewer requirements in purely academic subjects than at present would be of great benefit to the pupils in that curriculum. It would also provide a more suitable offering for many pupils of limited mental ability now enrolled in other curriculums, and having no educational or vocational plans.

CONCLUSIONS

The offerings of the Catholic high schools of this study are, for the most part, traditional, preparing a limited group of pupils for college, but not providing many others with the types of abilities they will use in everyday life. The curriculums offered in the schools are almost entirely college preparatory in nature, and even the commercial and general curriculums include, as a rule, subjects necessary for admission to college. The commercial curriculum offers units that prepare for clerical positions but not for the wider field of sales and store-service occupations. Except in two schools, industrial-arts programs are not included among the curriculums offered. In about half the schools pupils have no choice except to follow a program which prepares them for academic scholarship — a type of ability that not more than a fourth of them will eventually use. In the remaining schools boys have the choice of preparing for college or of taking work that prepares them for clerical positions. Thus, on the bases of the data presented, the majority of pupils are not prepared for anything in particular except to go to college: the curriculums they are obliged to follow do not provide them with salable vocational abilities, with knowledge of how to go about finding employment, or with knowledge of the types of work in

which they are likely to be successful. The educational programs of the schools are surprisingly uniform and make no provision for the varying interests and abilities of pupils.

The subject matter reflects the curriculums to a great extent, although the positive results of subject matter are more apparent than those of the curriculums. Pupils are taught academic content, some of them acquire skills in commercial and clerical fields, and some learn to play musical instruments. Most of them have acquired an appreciation of the value of education, as more than half planned to go to college, many of them entered colleges and universities, and about half the graduates who did not go to college and two-thirds of the discontinued pupils continued their education in other schools on the secondary level after leaving the Catholic high school. A small group are prepared for clerical jobs, and almost nine in ten graduates in commercial and clerical work have had some training in high school for such employments. Almost all, pupils and former pupils, do more than is required in certain obligatory religious acts. Former pupils are active in religious organizations, and, in addition, they participate in various social, fraternal, and civic clubs and perform the important civic duty of voting. Almost all pupils and former pupils read, and although the reading for the most part is for entertainment and diversion, it is not of the trashy sort represented by the pulp magazines. Almost all engage in wholesome recreation, much of it in the form of physical exercise. They have learned about government and they have acquired some knowledge of religion, English, literature, history, mathematics, and one or two foreign languages.

The omissions in the subject-fields in the program of studies are many. The commercial offering is largely of a type to prepare pupils for clerical positions only. The industrial arts are omitted from the program almost entirely, as are the graphic and plastic arts, music appreciation, and art appreciation. The elective subjects, for the most part in the academic fields and in commercial subjects, do not adequately provide for individual differences or for the varied interests and abilities of large groups of pupils.

Moreover, there is little relationship between what pupils learn and what they do or probably will do in their out-of-school life. They perform their religious obligations and join religious societies, but they do not to any great extent read religious books or magazines or listen to

religious programs on the radio. They do not read the types of literature that were stressed in English classes, although the taste of pupils and former pupils for better types of reading and radio programs improves with the age of pupils and the amount of schooling they received. As leisure-time interests are largely neglected in the subject matter taught in the schools, the improvement in taste is probably more the result of increase in the age of pupils and former pupils than of the number of years they were in school.

Former pupils who went to college received training for entrance into college. Graduates who did not go to college and who entered commercial and clerical pursuits had, in about nine cases out of ten, some training in high school for their work, although this training was more closely related to routine clerical duties than to store-service and sales positions. Those who entered skilled or semi-skilled trades did so without having had specific or closely related training in high school. The discontinued pupils, who are products of the schools also, entered, for the most part, sales positions in stores or industrial work. They, in general, did not receive training in preparation for these jobs.

There is little provision for individual differences of pupils in the schools of this study. The number of units offered in the average school is small, most of them are in the academic subjects, three-fourths of the work is required, electives are available only in the Junior and Senior years and are usually confined to the academic and commercial fields, and the organization of subject matter is the same for all pupils except in a few schools. As a result, the failure rate is high, especially in algebra, geometry, and Latin. A more varied offering, less rigid curriculum requirements, and effective educational guidance would provide for individual differences, make available subjects not now offered but desired by pupils, and probably cut down the amount of failure.

The program of studies of the Catholic high schools for boys is prescribed by legislative bodies and accrediting agencies to the same extent that it is in public schools. In addition, in the Catholic school system there are diocesan school boards and diocesan superintendents of instruction, who may set up programs of studies. Besides, the religious orders that conduct schools have educational committees or supervisors who may regulate broadly the school offerings. These agencies may have some influence in keeping the educational offerings almost entirely academic, but probably the force of tradition and faith in aca-

demic schooling are largely responsible for the uniform and traditional program of studies.

However, many principals and teachers with whom the writer conferred in visiting schools hold the opinion that the Catholic schools have been too conservative in admitting newer subjects to the curriculum on a par with the older traditional subjects. These principals and teachers realize that the purely academic offerings, instead of being a challenge to certain pupils, form a barrier to further education. While some changes were made in a few schools in 1936-37 in adding new subjects and in loosening the rigid curriculum requirements, almost all schools neglect to make provision for those pupils to whom the educational approach cannot be wholly intellectual.

The high school, like the elementary school, has to some extent become a custodial institution. A little experience in the high-school classroom makes it evident that some pupils lack interest in the older academic subjects because the credited deferred values of these courses are not apparent or may never be used. These pupils are probably in school because the law compels them to attend. Perhaps the call of the outside world is so strong that nothing the school does or offers could completely remove their feeling of restraint in being forced to attend. For such types of pupils, and for others too, art, music, physical education, unspecialized practical arts, subjects related to vocations in the commercial and industrial fields, citizenship courses, speech and English language and literature, and courses in religion might be an enticement to profit by their school experience. The subjects termed "newer" have values and should receive attention.[59] In considering their place in the program of studies, the following sage remarks might serve as a criterion:

> But most educators, like most other people, find a place in the curriculum for both the old and the new. This is the safe-and-sane group which thinks and acts between the extremes of the conservatives and the radicals. To this group nothing about the curriculum is sacred—either the old or the new. The old is conserved and respected as the tried product of experience, but it is also subjected to constant scrutiny as to its continued life values. Proposed new material is subjected to the same scrutiny for the same purposes and allowed to replace the old when its superiority is manifest. This group is responsible for keeping the curriculum alive and related to the cultural heritage of man.[60]

[59] Homer J. Smith, "The Need of the Newer Subjects," *School Review*, XLIV (September, 1936), 497-501.

[60] B. F. Pittenger, "Curriculum as Everyday Living," *Childhood Education*, XIII (May, 1937), 399.

APPENDIX

Table 126

The Catholic High Schools for Boys Included in this Study

Regis High School, Denver, Colorado
Marmion Military Academy, Aurora, Illinois
Cathedral High School for Boys, Belleville, Illinois*
De La Salle High School, Chicago, Illinois
De Paul Academy, Chicago, Illinois*
Holy Trinity High School, Chicago, Illinois*
Leo High School, Chicago, Illinois*
St. Ignatius High School, Chicago, Illinois*
St. Mel High School, Chicago, Illinois
St. Michael High School, Chicago, Illinois
St. Patrick Academy, Chicago, Illinois*
St. Philip High School, Chicago, Illinois
St. Rita High School, Chicago, Illinois*
Weber High School, Chicago, Illinois
Central Catholic High School for Boys, East St. Louis, Illinois
St. George High School, Evanston, Illinois*
Corpus Christi High School, Galesburg, Illinois
Joliet Catholic High School, Joliet, Illinois*
Fenwick High School, Oak Park, Illinois*
Spalding Institute, Peoria, Illinois*
St. Thomas High School, Rockford, Illinois
Reitz Memorial High School, Evansville, Indiana*
Central Catholic High School, Fort Wayne, Indiana*
Cathedral High School, Indianapolis, Indiana*
Central Catholic High School, South Bend, Indiana
St. Ambrose College Academy, Davenport, Iowa
Columbia Academy, Dubuque, Iowa
Holy Redeemer Boys' High School, Detroit, Michigan*
University of Detroit High School, Detroit, Michigan
Catholic Central High School for Boys, Grand Rapids, Michigan*

* Schools visited.

TABLE 126—(CONTINUED)

Boys' Cathedral High School, Duluth, Minnesota
Loyola High School for Boys, Mankato, Minnesota
De La Salle High School, Minneapolis, Minnesota
Cotter High School for Boys, Winona, Minnesota
Christian Brothers High School, St. Louis, Missouri*
South Side Catholic High School, St. Louis, Missouri
William Cullen McBride High School, St. Louis, Missouri
Boys' Central High School, Butte, Montana
Creighton University High School, Omaha, Nebraska
Roger Bacon High School, Cincinnati, Ohio
St. Xavier High School, Cincinnati, Ohio
Cathedral Latin School, Cleveland, Ohio*
St. Ignatius High School, Cleveland, Ohio*
Chaminade High School, Dayton, Ohio*
Central Catholic High School, Wheeling, West Virginia
Marquette University High School, Milwaukee, Wisconsin
Pio Nono High School, Milwaukee, Wisconsin*
St. Norbert College High School, West De Pere, Wisconsin

* Schools visited.

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